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ABSTRACT

This report sets out to describe current policy and practice related to health and AIDS education in primary and secondary schools in Africa and Asia. It focuses on: the health and education context, and the priority attached HIV/AIDS; curriculum content; teaching methods; teacher preparation and the concerns of young people with regards to health generally and AIDS specifically. The report draws on published and unpublished literature as well as empirical work in four countries: Pakistan, India, Uganda, and Ghana. The empirical work combines key informant and documentary analysis of stated policy and practice, with detailed work carried out in selected schools in each of the countries. The schools data pay particular attention to the worries and concerns of young people. As such, it may provide a useful starting point for discussion on developing "student centered" health education curricula. (Contains 43 references.) (Author/JDM)

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E Barnett, K de Koning and V Francis

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EDUCATION RESEARCH

HEALTH & HIV/AIDS EDUCATION IN PRIMARY & SECONDARY SCHOOLS IN AFRICA & ASIA

Policies, Practice & Potential: Case Studies from Pakistan, India, Uganda, Ghana

E Barnett, K de Koning and V Francis
Education Resource Group
Liverpool School of Tropical Medicine

in collaboration with:
The College of Community Medicine, Lahore, Pakistan
The Institute of Management in Government, Kerla, India
The Institute of Public Health, Makerere University, Uganda
The Health Research Unit, Ministry of Health, Ghana

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In the report. a number of the young people's drawings have been reproduced. We wish to acknowledge their contribution. We wish also to thank Veronica Birley of Tropix for her sensitive handling of some of this material for publication.

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SUMMARY OF CONCLUSIONS

Aims and methods

1. This report sets out to describe current policy and practice related to health and AIDS education in primary and secondary schools in Africa and Asia. It focuses on: the health and education context, and the priority attached HIV/AIDS; curriculum content; teaching methods; teacher preparation and the concerns of young people with regards to health generally and AIDS specifically.

2. The report draws on published and unpublished literature as well as empirical work in four countries: Pakistan, India, Uganda and Ghana. The empirical work combines key informant and documentary analysis of stated policy and practice, with detailed work carried out in selected schools in each of the countries. The schools data pays particular attention to the worries and concerns of young people. As such, it may provide a useful starting point for discussion on developing "student centred" health education curricula.

Key issues in the implementation of health education in schools

3. Conclusions from the literature suggest that to date, evaluation of health education in schools demonstrates that it can substantially improve knowledge on health topics. Evidence of effects on behaviour are more limited, and indicate the importance of supporting education with health services, and with paying attention to the broader "health environment" of the school. Evidence of school health education having a direct effect on health outcomes remains problematic, and inconclusive.

4. Key factors influencing impact include: links with health services; teacher preparation; time devoted to health education; parent participation; the timing of health education input (in terms of pupil age); peer support and the presence of operational school policies which support health promoting behaviours.

5. There is evidence from a number of African and Asian countries to indicate that health education is included in curricula - but that it is generally very limited. There are examples of both "separate subject" and "integrated" health education. The latter appear to be more successful in ensuring that children receive some teaching in this area.

6. Curriculum content follows a fairly standard pattern in many countries - broadly in line with WHO recommendations - and usually includes the following elements: personal hygiene, food safety, nutrition/diet, sanitation, and common diseases. Further items which are seen less frequently are: dental hygiene, exercise, drugs, accidents. Sex or population education is usually mentioned in text books but taught superficially, and with considerable discomfort by teachers. HIV/AIDS is included either in sex/population education, or (Uganda) in common diseases. Coverage in the Asian countries is minimal at present, and kept to very basic information, not related to sexual intercourse. In Ghana and Uganda, the coverage is more detailed. Only Uganda appears to be starting to consider moving forward from basic information provision to addressing practical issues connected with safe sex, and with the care of people with AIDS.

7. Teaching methods in all countries predominantly focus on didactic approaches. However, there are examples of more participatory approaches to education, especially in Uganda. There are also a growing range of examples of innovative extra-curricular activities (eg: health clubs, magazines, drama competitions, child-to-child activities). Uganda provides a range of examples - and has experienced the catalytic effect of AIDS education on its broader health education programme. NGOs often play a key role in fostering innovation.

8. Teacher preparation on health education is lacking in all countries studied except for Uganda, where an in-service approach has been in operation since 1987, and pre-service training is now being developed.

9. Whilst there are exceptions to the rule, the "health environments" of many schools in Africa and Asia are generally reported to be poor (often lacking basic hygiene and drinking water facilities, providing no or inadequate food, poor lighting and ventilation etc.).

10. School health services are equally rudimentary, and often lacking entirely. However, there are a growing number of countries experimenting with more targeted health interventions through schools (eg: deworming; micronutrient supplementation).

11. There have been few attempts to use health needs assessments of school aged children as a basis for health education planning (although Ghana has done some useful work in this area). There is even less evidence in Africa and Asia of researching the concerns of young people in order to aid curriculum planning. The school studies are a first attempt to redress this problem - building on successful work in this area which is becoming commonplace in the UK, Europe and Australia.

12. There are very few examples of on-going monitoring or evaluation work related to school health education programmes. Rather more is available on evaluating mass media campaigns on AIDS awareness.

Conclusions from the four case studies

13. Pakistan (Punjab): Results from both the policy analysis and from the school studies indicate a low level of activity in health education generally, and virtually no evidence of development around AIDS. Young people show a limited awareness or understanding of health issues - although several speak with tremendous feeling and concern about the problems of urban pollution. Due to the official requirement that the children should not be asked directly about sexual knowledge and HIV, it was not possible to engage the school children in the additional draw and write study or the focus group discussions specifically about AIDS and HIV. Difficulties with this aspect of the research are indicative of a variety of serious constraints to development, suggesting that, for AIDS education in particular, it may be preferable to work through non-government agencies initially, until more widespread work becomes acceptable. On health education, a "health intervention" approach may make greater progress and have a clearer impact than would attempts at curriculum development. However, the sustainability of such an intervention would need to be given careful consideration, alongside its benefits (in terms of who is reached) - given low levels of school enrolment.

14. India (Kerala): Evidence from central level (both national and state) suggests quite a sophisticated view of health education in schools, with detailed inclusion in a specialised curriculum, some integration in other subjects, and the development of health clubs for extra-curricular activities. This is not yet however fully apparent in practice. There is some evidence to suggest that detailed teaching around health is often sacrificed for "examined" studies. Attempts to make health teaching more active than didactic have not achieved noticeable success to date -although there is awareness of the need for a more active approach amongst some teachers. In the schools included in the study, health clubs are present in name only. AIDS education in schools is seen to be important and a necessary step - but as yet has not been fully thought through or planned. Evidence from young people showed substantially greater awareness of AIDS than teachers interviewed anticipated - but also showed several important areas of misinformation.

15. Uganda: Uganda has many exciting examples of innovation and development within school health education generally and AIDS education particularly. There is a well established School Health Education Programme, which is supported by policy, by established coordinating mechanisms at central level, and is relatively well researched both from the angle of needs assessment and evaluation. AIDS education is integrated into this work, and is well resourced with innovative materials and specially trained teams of trainers. Programme implementation is reasonably effective, although a number of problems have inevitably arisen - including the need to establish much better local coordination and strengthening of planned but so far insufficiently implemented monitoring and evaluation systems.

Evidence from the young people themselves shows insight into a wide variety of health issues - including a detailed understanding of AIDS prevention. There are a number of concerns which stand out - including observations on environmental health and sanitation, on different aspects of nutrition, drugs, a variety of diseases, and more personal concerns focused on family life (especially mistreatment at home), and success and failure at school. AIDS was the most frequently mentioned illness (at a stage in data collection where the young people were not aware of our interest in AIDS). This contrasted with the other three countries, where there was little or no general indication of a concern about AIDS amongst young people. In terms of moving forward on AIDS education, there is much to commend in terms of current practice, and obvious areas which now need to be developed.

including more emphasis on the development of "life-skills", counselling options in schools, training teachers in the use of interactive teaching methods.

16. Ghana: Ghana provides a quite complicated picture on development in health education. There is not the policy development at central level which is evident in Uganda - and yet there is substantial health coverage in the syllabus, which can be described in some detail by teachers, and in rather less detail by students. There are several emerging activities (eg: school health surveys, health intervention programmes, child-to-child developments, ad hoc health clubs), and also an emerging school health unit within the Ministry of Education. However, the basic infrastructure and active coordination between health and education still needs to be developed, and the development of a coherent strategy would help to ensure that different strands of activity become complementary. This is true for AIDS work as well as general health education.

The perspective put forward by the young people places much more emphasis on problems with home, family, and friends (ie: more to do with emotional well-being) than on personal health issues - suggesting some value in strengthening guidance and counselling services and pastoral roles in schools. Work in AIDS education is needed to support current mass media input. The problems which have shown up here have more to do with emphasis than on mis-information (eg: an apparent preference to dwell upon blood transmission of AIDS, rather than getting a clear understanding of sexual transmission). There is still plenty of work required on basic aspects of AIDS awareness, and valuable work to be done by, for example, some voluntary youth organisations, in finding acceptable ways forward for developing a more skills-oriented approach to AIDS education.

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
IEC	Information Education and Communication
JSS	Junior Secondary level Schooling
MCH	Maternal Child Health
MoH	Ministry of Health
MoE	Ministry of Education
MoES	Ministry of Education and Sport
NGOs	Non-government organisations
P	Primary level Schooling
SSS	Secondary level Schooling

PREAMBLE

Since the late 1980's, there has been a growing interest in the development of health education in schools. This has been spurred on by the AIDS pandemic. Health education, focused on changing sexual behaviour, has been seen as a key strategy in arresting the spread of the disease. In 1993 the ODA education division invited proposals for a study to:

> "establish the extent to which health education (including AIDS) is currently included in the curriculum of primary and secondary schools in Africa and Asia, the relevance of the curriculum content to children's needs, teaching methods and teacher preparation."

This occasional paper presents the outcome of this study, which was undertaken by the Education Resource Group of the Liverpool School of Tropical Medicine, in conjunction with collaborating partners in Pakistan, India, Uganda and Ghana.

The study had two elements:

- a review of available literature and documentary evidence on the current state of health and AIDS education in schools in Africa and Asia
- case studies of policy and practice in health and AIDS education in the four countries.

The first section of this paper provides an overview of the issues facing policy makers in determining whether and how to include health and AIDS education in school curricula. It draws on evidence from the literature and from the results of the four country studies.

The second section presents the methodology and main findings of the country studies. The case studies combined key informant interviews and collection of documentary evidence from central government agencies, donors and non-government organisations. The in-depth studies of schools involved over 3,000 pupils in 'draw and write' - a method to explore perceptions and health concerns. A summary matrix is provided to enable the reader to make comparisons across the four countries. This is followed by a more detailed presentation of the country studies.

The study places emphasis on recognising the importance of children's perspectives as a starting point for meaningful educational planning. It is fitting, therefore, to start this report with the words of one of the young respondents:

> *In many cases we the youth are treated rather unfairly. I'm talking about third world countries. The youth are not given the right to express themselves or choose what they want, which I believe is a right of every human being. At home, parents rebuke us unfairly sometimes, they frustrate us, we can't answer to defend ourselves, they don't consider that we know what we want but instead want to decide everything for us. They don't have time to listen to our 'nonsense' pleas. Especially the working ones who from work go to drink from clubs straight to beds—so that their children see very little of them. It is very important to spare time to advise, have leisure talks with our parents, but they don't seem to realise! That is why we end up in such messes as pregnancy, bad habits of not mixing well with other people. We lack that consideration and we need more parental love. Of course not only parents but all elderly people should be responsible for community's youth.*

SECTION 1

AN OVERVIEW OF THE ISSUES FACING POLICY MAKERS

Introduction

When one studies mortality and morbidity figures, the case for placing emphasis on the health of young people is not instantly compelling, since the 6-24 year age group tends to carry a relatively low burden of disease. On the other hand, the majority of death and disease in this age group is preventable. Work, particularly in terms of establishing a sound educational base, should bring future health gains, as young people grow up and become the parents and the workforce of the future.

With over one billion children in school, forming an easily accessible target group, the use of schools as an entry point for health activities is proving increasingly interesting to governments and donor agencies alike. Several key documents have stressed both health gains and cost effectiveness of organising health activities through the school system (e.g. World Bank 1993; Nakajima 1992). Other documents stress the educational importance of school health interventions. Much of this evidence is summarised in a major World Bank study (Lockheed and Verspoor 1991) entitled Improving Primary Education in Developing Countries. Taking evidence from a wide range of countries, they highlight protein energy malnutrition, temporary hunger, micronutrient deficiency and parasitic infection as important factors getting in the way of student learning in school. They recommend school breakfasts, deworming programmes, and micronutrient supplementation - combined wherever possible both with health education and with improved school sanitation resources - as cost effective ways of increasing learning achievement in schools.

Turning to the specific case of AIDS, it is acknowledged that the search for affordable vaccines and treatment therapies may take years. In the meantime, the main strategy for holding back the spread of the HIV virus is education, with consequent behaviour change on the part of individuals. Education must reach those who are at highest risk. Evidence suggests that a primary group for such education is teenagers and young adults:

> "in many developing countries more than half the population is below the age of 25 years. In many countries over two thirds of adolescents aged 15-19 years, male and female, have had sexual intercourse. Adolescents and young adults (20-24 years of age) account for a disproportionate share of the increase in reported cases of syphilis and gonorrhoea world-wide. ....In addition, at least one fifth of all people with AIDS are in their twenties, and most are likely to become infected with HIV as adolescents." (School Health Education to prevent AIDS and sexually transmitted diseases. WHO AIDS Series no.10 p.1.1992.)

What then are the most appropriate ways of reaching these groups? What potential do schools have to provide a base for AIDS education?

The aim of the study reported here is to provide insights into policy, practice and potential for health education within school systems in Africa and Asia, combining detailed case studies from four countries with a broader analysis of reported activities from the two continents.[1]

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[1] For details of the literature and document search see Section 2: Case studies.

A model of health education

Explanatory models of health education generally propose a link between health information and health behaviour, but agree that the link is not a direct one. For example, a review of nine studies on AIDS education (Witte 1992) concludes that "adolescents and young adults know about AIDS and how to prevent it, yet they don't".

There are three main health education models, each with a number of variants. Behaviouristic models (such as the health beliefs model and the theory of reasoned action) focus closely on the individual, looking at the positive and negative forces which play on him/her, and hence mould behaviour. Social learning models (eg: Green 1991) add to this the context of social networks and the environment in which the individual operates. Here, the individual is seen as an active agent who plays a role in creating a social and physical environment. Thirdly, there are 'education for liberation models' which focus on empowerment and community action (e.g. Werner & Bower 1982, Freire 1970, Wallerstein 1992).

In exploring the practical implications of these different models for curriculum development, it is clear that several elements are important in developing health education interventions.

First, for information to be translated into behaviour, there must be an intention to act on that information. The intention to act is the result of a complex interplay of factors, including:

- having the knowledge to understand that one is at risk
- believing yourself to be at risk, and seeing that risk to be serious
- valuing the outcome and costs of different (health promoting) actions more than the benefits of current (less healthy) actions.

Research shows, for example, that information which emphasises the behaviour of certain "high risk" groups (eg: sex workers in connection with HIV/AIDS), makes it more difficult for people who are outside that group to believe they too are at risk. Alternatively, where an individual acknowledges risk, but feels powerless to do anything about it, then s/he may cope by denial of the risk. Therefore, people do not only need to know "what" to do, they need to know "how" - and to have the opportunity to practice and feel they are capable of change.

Secondly, assessment of risk and of the cost of changing to more health - promoting behaviour does not take place in isolation of others. It is often the case that current actions are supported and valued by friends, relatives and others who are important to the individual. Where this is the case, the individual will need to be able to negotiate any change in behaviour without fear of losing support from these key people. In educational terms, this stresses the importance of activities which enable young people to reflect on and discuss values, and reasons for behaving in different ways.

Third, discussion of risk also needs to take on board the fact that physical health is not the only concern (or even a major concern) of young people. As will be clear from the results of this study, young people stress priorities to do with personal relationships with friends and families; survival at school and home; thoughts of who they are and what they will be, and concerns about much bigger and broader social and political issues. Their concerns will influence how much time and energy they are willing to spend taking health issues seriously. The more health education is able to connect with their concerns, the more likely it is to be successful.

Finally, environmental factors have a substantial influence on the extent to which people can adapt their behaviour. Accessibility and availability of health facilities are key components in supporting health promotion. Policies and practice in schools, for example, food provision, or water supply and sanitation practices, can do a lot to support school health. Figure 1 (Adapted from Green 1991 p.369), summarises the main elements outlined above, and provides a helpful model for curriculum development in health education:

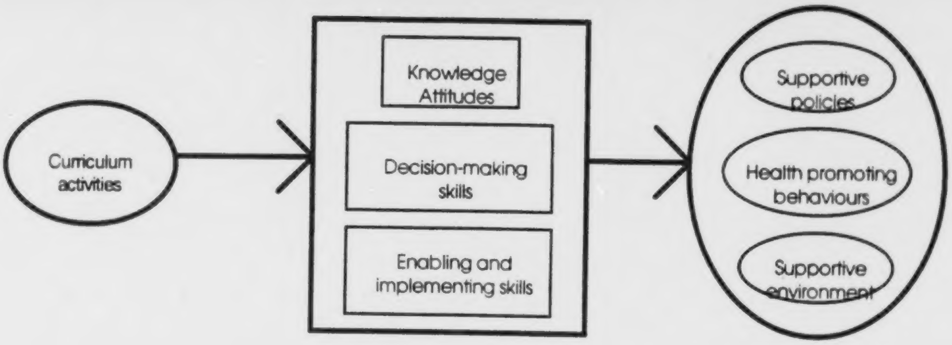

Figure 1 (Adapted from Green 1991 p.369).

As will be seen from the evidence presented in this paper, achieving this combination is far from straightforward. It involves:

- establishing clear links between the health and education sectors centrally, which promote co-ordinated policy development and implementation
- basing the health education curriculum on the health needs and concerns of school students
- ensuring that teaching methods used are relevant to the development of skills, and do not focus simply on the transmission of knowledge
- ensuring that teachers are adequately prepared, both in terms of knowledge and in terms of the teaching skills necessary for the development of skills in their pupils
- ensuring that, at the very least, the health environment of the school is reasonable - and that the general health environment is also being developed.

Where health education focuses on sexual health, including AIDS, the whole equation is made that much more difficult in that the subject matter, attitudes and "skills" are frequently "taboo" topics, embedded in a complex array of traditional cultural and religious values.

Does health education affect health knowledge, attitudes and behaviour, and influence health outcomes?

a. Arguments for strengthening health education in schools

Health education presents a special challenge to policy makers, in that it necessitates the development of strong linkages between two important government sectors - health and education. Any developments in health education have to weigh up the relative public health advantages of including health in the school curriculum, against the educational and pedagogic concerns of increasing "curriculum overload" - diverting attention from the key areas of literacy and numeracy. If health education is to be strengthened, its public health advantages will need to be clear. This section summarises available evidence on this issue. It makes some reference to evidence from developed countries, given the very limited evidence currently available from developing countries.

There are at least four practical arguments for considering strengthening health education in schools (British Council Feb. 1992):

- feasibility (in theory you know where the schools are, when they operate, what numbers you can anticipate, and what systems you must go through to gain access either on a one-off basis or in terms of developing more systematic programmes)
- linkage to communities (with schools often providing a community focus, a meeting place, and a channel of communication i.e.: from school children to their families and to their out-of-school peers)
- increasing the use of a possibly under-utilised resource (i.e.: "schooling", with a little imagination, can go beyond the development of basic numeracy and literacy skills, and school buildings and (where they exist) other school resources can be extended to provide a broader community resource)
- sustainability (ie: when it is possible to introduce health activities into general school life, without the introduction of new staff or special resources, but simply by adapting what is taught, such interventions are, in theory, sustainable.)

Education systems in many parts of the world have already made significant progress in developing school health (education) programmes. For example, the British Council report (1992) presents a number of case studies of innovatory projects (e.g. oral self-care in Delhi, an integrated development project in Kenya, health in mathematics in Kenya, health promotion in Nepalese schools, Child-to-Child in Burkina Faso).

Whilst some of these projects have had a national impact, the majority are on a small scale, tackling one aspect of health or one area of the school curriculum.

b. Evaluation studies of general health education programmes

Literature searches of key databases highlighted only one large scale, school health education evaluation study, concerned with broad ranging health education curricula. This is from the US (Connell et al 1986). It compared four different school health education programmes, each implemented in a large number of schools. It evaluated the programmes over a two year period, and looked for influences on health behaviours, attitudes and knowledge. The study concludes that:

> "school health programs for primary grade students have important effects on students' self-reported behaviour, knowledge and attitudes. The largest and most consistent effects were found in the domain of health knowledge...effects for both health attitudes and practices were less powerful.....the impact of health programmes may fade unless reinforced and amplified through family practices as well as continued effective school health programming." (p.249)

The study acknowledges that the methodology used provides very limited evidence on health behaviours and none on health outcomes. But it highlights the methodological dilemmas of attempting both to collect and then explain such data, as well as the prohibitive costs of such data collection.

A UK review on the effects of school health education on health-related behaviour (Reid and Massey 1986) presents a more positive picture, drawing on evidence from a wide range of small and larger scale interventions. They conclude that "given suitable methods, used in appropriate contexts, schools can favourably affect teenage health-related behaviour in relation to smoking, oral hygiene, rubella immunisation and teenage fertility. There is also some evidence for potential success in the field of diet and exercise...and indications that some health education lessons travel home and affect family health behaviour." The initial provision of "appropriate contexts and methods" is worth keeping in mind, as is the fact that many of the programmes referred to are limited either to a given health issue, or to a specific geographical area.

Turning to developing country literature, Loevinsohn (1990) has reviewed journal articles (1966-1987) evaluating all types of health education interventions in developing countries. Of 67 articles reviewed, only seven make reference to school health education programmes - two of which focus on dental health. He concludes that "From the few well conducted studies it appears that health education can sometimes lead to changes in behaviour and in health status although there remains room for legitimate scepticism." Looking at the quality of these studies overall, Loevinsohn could find only three which he considered to be methodologically sound, none of which were from the school studies.

An overview of school health education in India (WHO/UNESCO/UNICEF 1992) notes that "Though evaluation of learning outcomes is a major recommendation of the National Policy on Education, this is not done because of inadequate implementation of the programme." Other studies described in the same publication indicate some pupil assessment on health, and some processes in place for materials' design and development work. But none address the problem of looking at the effect such programmes have on the health behaviours of young people.

The study reported in this document provides some comparative evidence of variations in apparent health understanding of young people in different countries. For example, in Pakistan (where health education is virtually absent from the school curriculum, and is certainly not implemented), the "picture of health" provided by young people, encompasses a narrow range of issues, often in little or no detail. In comparison, the Ugandan children (who receive a much more substantial health input) address a much broader range of issues; and, through both words and images, provide greater detail, suggesting a greater depth of understanding; however, this study has not attempted to link this understanding to health outcomes.

There is no further evidence from the in-depth country studies to suggest any wide scale evaluation of school health education either completed or in progress.

c. Evaluation studies of "subject specific" health education programmes

There is more tangible evidence available on specific programmes, but again, the developing country literature is thin. Ford et al (1992) have reviewed literature on the health and behavioural outcomes of population and family planning education programmes in school settings in developing countries. They start with reference to an American study (Kirby 1984), which concludes that:

- most programmes included in the study improve knowledge
- there does not seem to be much change in attitudes to various aspects of sex and family planning. However, "permissive attitudes" do increase with age, but longer programmes appear to prevent students becoming more permissive
- there is limited impact on social skills/decision making relating to sexual matters
- there is no impact on sexual behaviour (this is significant, given the prevalent public perception that sex education increases promiscuity)
- there is no impact on contraceptive use or pregnancy, except where education is closely linked to service provision. Where this is the case, there appears to be a significant decrease in pregnancy.

On developing country literature, Ford et al conclude that there is minimal implementation of family life/sex education in Africa, hence no systematic evaluation. A somewhat different picture is given by Muito (1993) suggesting that by 1989 eleven African countries had on-going population education programmes, and a further eight were being prepared. However, this initial assertion is countered by later observations that, in the majority of cases, programmes show an absence of firm policy, and major constraints to implementation.

Ford et al found no published accounts of evaluations from Asia, and only two examples from unpublished work - from Thailand and Vietnam. The Thai work indicated improved knowledge on contraception, and some evidence of increased contraceptive use. The Vietnamese study also notes improvements in knowledge, but little else.

d. Evaluation of AIDS education programmes

There is a growing body of literature attempting to evaluate the impact of AIDS education programmes. Oakley et al (1995b) have reviewed a wide range of HIV/AIDS prevention studies from the English language literature. Of 815 studies reviewed, there were reports of 68 evaluations of "outcome" measures. Oakley et al then analysed these 68 reports for "methodological soundness" - using the following criteria: 1) aims clearly stated 2) randomised controlled trial 3) replicable intervention 4) numbers recruited provided 5) pre- and post-intervention data provided for all groups 6) attrition discussed 7) all outcomes discussed. Using these criteria, only 18 of the 68 studies were considered methodologically sound. Only nine of these concerned interventions with young people (none from Africa or Asia). The results from the review in general "suggest that sound and effective interventions are most likely to be skill-based interventions ... in community settings using interviews and role play, and targeting behaviour or combined behaviour and knowledge outcomes" (Oakley et al 1995b: 484).

The Oakley review does not include evaluations of mass media campaigns - where the possibility of conducting randomised controlled trials is problematic. Reports from national AIDS control programmes focus on knowledge/attitudes/practice studies concerned with the impact of mass media programmes. These studies indicate that in many parts of Africa, AIDS awareness is growing, but that this awareness has yet to be translated into potentially health-promoting behaviours (eg: reduction in number of sexual partners, or increased condom usage).

We found no published examples of evaluations of schools AIDS education programmes in developing countries. However, evidence emerging from AMREF in Uganda suggests that increased levels of knowledge of HIV/AIDS taught through the school curriculum has had little impact on teenage pregnancy and STD rates. There are increasing numbers of studies in some countries (eg: Uganda and Ghana) which are starting to look at the sexual practices of young people, but the vast majority continue to focus only on knowledge and attitudes.

The Ugandan findings may put funders off investment in health education. However, it will be important to explore the extent to which countries which have a low prevalence of HIV can harness the benefits of education (in terms of its effect on knowledge) at an early stage.

e. Key factors thought to affect programme implementation

Several of the studies referred to above have also considered those factors which influence programme success. To date, the following points are worth considering:

- Links with health services: those studies which have been able to demonstrate influences on health behaviour and impact on health outcomes have been directly linked to locally available health services (eg: immunisation services, dental services, contraceptive services). The link with the health sector is also seen as vital for in-service training (for example, in the UK, the majority of teacher in-service training in health education is provided through the National Health Service).
- Teacher training: Some studies stress the value of in-service training in health education. One UK review (Reid and Massey 1986), however, concludes that, in some cases, teachers with little health education preparation may provide results that are as effective as "specialist teams". However, from the Connell study it is clear that the costs of in-service training (which tend to be the only substantial "additional" implementation costs) often act as a major constraint to implementation.
- Time devoted to health education: Connell concludes that the largest improvements are found where more time is spent on the programme. Ford, looking at sex education, does **not** find this to be a factor.
- Parent participation in the classroom: Several studies indicate the importance of linking home and school, ideally through involvement of parents in school.
- Timing health education input: UK studies emphasise the 11-14yr. age range as crucial.
- Peer support/activity: this again is seen as a positive strategy for both general health education and sex education programmes.

Operational school policies: these can help improve implementation, where they are supportive of healthy behaviour (eg: school meal nutrition, smoking etc.).

f. Some methodological problems with evaluation studies of health education programmes

As has been mentioned above, evaluation of this nature presents some important methodological problems:

- Programmes often encompass a diverse selection of issues (eg: basic hygiene, sanitation, food safety and diet, accidents, drugs, sexual development, STDs, pregnancy, family planning). Given the complexity of each, in terms of possible short and long-term health outcomes, the selection of appropriate indicators would present a major challenge.
- Health education is often concerned with long-term "health habits" - the benefits of which may not be apparent for several years. Hence timing measurement of health outcomes becomes problematic.
- Health education is only one of a wide range of factors influencing health behaviour, and is hard to disentangle.
- Many studies use "before/after" measurements - but with no control group. This renders attribution of effect open to debate.

Oakley et al (1995b) and Loevinsohn (1990) identify the need to implement more randomized controlled trial evaluations, which include behavioural outcomes. Given that health education is generally poorly funded, it may be worth investing time and effort in producing clear evidence of its' benefits. It should be quite feasible to use the randomised control trial approach in testing out school health education curricula and their implementation. However, unlike (for example) drug trials, the range of cultural, social and economic factors involved in education provision would still make interpretation of results problematic (eg: is any effect found due to programme "content", teacher factors, student factors, external confounding events such as media coverage etc.). A further difficulty with using such trials as a basis for deciding on wider implementation of a (successful) programme is the extent to which a limited trial can be "scaled up" effectively into a regional or national programmes.

g. Conclusions on the health impact of school health education programmes

To conclude this section, three points are worth highlighting:

1. Whether one looks at developed or developing countries' literature, the available public health evidence of the value of school health education is limited. This gives policy makers little to go on, and indicates an important area of research (which is acknowledged to be methodologically problematic).
2. The evidence that is available suggests that, at best, health education is most effective in improving health knowledge.
3. The only examples where there is a clear effect on health behaviour and health outcomes, appear to be where there is a strong link between schools and health service provision.

Health education in the curriculum

Health input is identifiable in the curricula of all four countries involved in this study, at both primary and secondary levels. There is also some documentary evidence from a range of other countries in Africa and Asia, to show where and how it is located in the curriculum. The two main models are:

- treating health education as a distinct "subject" area (e.g. India, Nigeria, Pakistan, early secondary level in Sri Lanka)
- integrating health education into other areas, but usually with a block of input within some form of life-skills or social studies programme (e.g. Uganda, Ghana, Kenya, Namibia, Zambia, Philippines, and primary level and later secondary level in Sri Lanka).

Those countries which say they have an integrated model mention science (especially biology and physiology), home science/home economics, social education/social studies/ cultural•studies/ethics, agriculture/environmental education, and physical education (PE), as the main subject areas in which health education is included.

Recommendations from the literature as to which of these models is more effective are not conclusive. British and American literature suggest that integration can help "protect" health education time - but this approach does require careful co-ordination, and some element of a core programme (eg: within social studies/life skills), to avoid fragmentation. Evidence from the in-depth studies reported in this document supports this view. Uganda and Ghana, which both have an integrated approach, indicate that they have greater health awareness and coverage, than is the case in either India or Pakistan - where teachers acknowledge that health education is not examined, and is often "squeezed out" of the timetable, in the face of competing pressures from examined subjects.

Whichever model is used, finding space in the curriculum for health education is a dilemma that has beset schools world wide. This comes across clearly as much in the four countries included in this research, as it does in the literature. Lockheed and Verspoor (1991) refer to work by Benavot and Kamens (1989) on curriculum time devoted to major content areas in 90 countries. Of nine content areas listed, hygiene education comes bottom of the list, accounting for only 1% of curriculum time. Physical education and moral education each accounted for 5-7% of curriculum time. The other two areas where health education is commonly integrated, science and social studies, each account for around 8-10% of curriculum time.

During the period of the study, we have been unable to find detailed information on the place of AIDS education within curricula. However, what has emerged from the country studies is that where it is included in the curriculum, it is generally to be found alongside health education on specific diseases, and is limited in content to provision of basic information. The wider objectives suggested by WHO (1994), of developing interpersonal skills for delaying the start of sexual activity and negotiating safe sex, plus attitudinal work on care of people with AIDS, are not yet part of general practice. Possible exceptions to this can be seen in two sets of materials: from Uganda (the "Secondary School Health Kit on AIDS control" and "Training for AIDS Prevention Education") and from the South Pacific ("Education to Prevent AIDS/STDs in the Pacific : a Teaching Guide from Secondary Schools").

Ford's review (1992) indicates the limitations in provision of sex education in much of Africa and Asia, making it unlikely that AIDS education would stand out as a clear subsection of sex education. The obvious "home" for AIDS education is within the context of broader sexual health and development.

a. Curriculum content

WHO guidelines on comprehensive health education in schools suggest a number of distinct "health issues" which may reasonably be included. These are presented in summary form in the first column of Table 1 below. The remainder of the table summarises some of the data collected in this study. This provides some insight into the breadth of the curricula, the extent to which teachers and parents acknowledge that the issues are covered, and the extent to which those same issues are raised by students.

From this very simple overview, the paucity of health education in Pakistan is quite apparent. The India data suggests a broad curriculum, which is not yet implemented for the most part. There is some suggestion, however, that health education is clearly linked with "disease" in the minds of teachers and parents, and this is echoed by pupil perceptions of what makes them "unhealthy". The Ghana and Uganda summaries suggest a greater degree of curriculum implementation, with combined data from Ghana stressing the personal hygiene/sanitation elements, and Uganda showing a much broader range of issues being recognised and commented specifically on by both teachers and students.

Dental hygiene, exercise/rest and accidents appear to get minimal attention in any of the countries (although dental hygiene may well be incorporated in personal hygiene). Drugs education, including smoking and alcohol, also gets little mention. These points may well reflect the very different health priorities of developed and developing countries (although accidents is possibly an area to which developing country health education programmes could pay greater attention). Of the four countries, Uganda is the only one where AIDS gets more than a passing mention in textbooks, and is recognised as important by both teachers and students.

Table 1: Health education curriculum content in the four case studies

Issue	Pakistan	India	Uganda*	Ghana
personal hygiene	📖✓	📖	📖 ✏	📖✓☺✏
dental hygiene				
food safety	📖	📖 ✏	📖 ✏	📖✓
nutrition/diet	📖	📖	📖✓ ✏	📖✓ ✏
exercise/rest	📖 ✏	📖		
sanitation (including latrines/water sources)	📖 ✏	📖 ✏	📖✓ ✏	📖✓☺✏
pollution (from traffic/industry)	✏	✏		
drugs (including: smoking and alcohol)		📖	📖	📖
accidents	📖	📖	📖 ✏	
sex education		📖✓ (population education)	📖✓ ✏	📖✓
diseases/"being sick/ill"		📖✓☺✏	📖✓ ✏	📖✓ ✏
AIDS	📖		📖✓✏	📖
Additional issues raised by young people, but not referred to by teachers or parents:				
problems with parents		✏	✏	✏
problems with friends			✏	✏
problems with teachers/studies/school		✏	✏	✏
personal worries		✏		✏
political/social concerns			✏	✏

KEY

📖	included in a key textbook
✓	referred to specifically by most of the teachers consulted
☺	referred to specifically by most of the parents consulted
✏	included in their 'draw and write' responses by 20% or more of the young people consulted
*	note: no parent data was collected in Uganda.

b. Teacher preparation

There are four key questions to consider on teacher preparation, related to health and AIDS education:

- to what extent are teachers trained in the "content" of health and AIDS education, and how important is specialised training in this area?
- to what extent are teachers trained to implement recommended (participative) teaching and learning methods?
- should training be an essential element of basic training, or is it better presented through in-service training?
- to what extent do teachers feel able and willing to take on responsibility for health and AIDS education?

The Connell (1986) study highlights the importance of teacher preparation in both "content" and "methods". Where teachers have been adequately trained, students show improved learning. Lewis (1993), reviewing 50 years of health education in schools in the UK suggests that, as yet, no conclusion has been reached as to whether schools provide a better quality of programme by using a "specialist team" of staff in the school with health education expertise, or by encouraging all staff to get involved (with much more limited training). He comments that "Anecdotal evidence suggests that either system can be equally successful or equally calamitous".

Again, the developing country literature on teacher preparation for health education is extremely limited. Lockheed and Verspoor (1991) indicate that across developing countries generally, basic teacher training is weak, didactic, and suffers from an overcrowded curriculum. This view is echoed by an ODA study in Ghana on teacher training for the junior secondary school level. From the in-depth country studies it is clear that health education is not included in the teacher training curriculum. Even where there is a broader based "life skills" curriculum element (e.g. Ghana, where the subject is part of the core curriculum in schools) it is not core curriculum in teacher training.

In Uganda teacher training for health education has been carried out during a 10 day special training programme. The training guides teachers in what to teach on health education subjects, including AIDS education. Some attention is given to how to teach. Special training workshops on AIDS prevention are conducted for health educators who, in turn, become trainers of teachers. Central to the approach taken in this training is the concept of self awareness and learning to facilitate group discussions. Interactive teaching methods, such as games and role plays, are an important aspect of this training. However, one of the problems recognised in Uganda and Zambia, during follow-ups of teachers who were introduced to interactive teaching methods, is that the majority lapse back into didactic teaching.

As to how teacher training should be provided, Lockheed and Verspoor emphasise in-service training as being of more practical value, rather than a further extension of basic training; however, this presents a number of logistical difficulties. This is highlighted in the American evaluation study (Connell 1986), where the (limited) additional cost of in-service training was perceived as a key barrier to the effective implementation of programmes.

c. School as a "health supportive" environment

Beyond the formal curriculum, there are at least four further levels at which health education may operate within schools:

- via school health services
- through planned extracurricular activities
- through broader environmental features of the school (eg: presence of some kind of school health policy; health regulations governing sanitation provision or school meals; the extent to which the school provides a "health supportive" environment).
- through active contact between schools and the community - especially children's families.

This study has not attempted to address these issues in great detail, but some insight into them is possible from the literature and from the country studies.

School health services

UK and US studies stress the importance of effective linkage between health services and school health education programmes, if behavioural change and health outcomes are to be achieved.

Different countries include varying levels of provision. For example, in Namibia, children in grades 1 and 6 should get a physical examination, and it should be ensured that their immunisation records are up to date. In the Philippines there is a system which includes medical and dental services, as well as school health nursing. There is also a system of "school health guardians" who are teachers trained to monitor the health of pupils (WHO/UNESCO/UNICEF 1992).

None of the countries visited for this study appears to have a consistent, on-going school health service, which has regular contact with large numbers of schools. In Pakistan, there is some reference centrally to such a service, but it is non-operational. Teachers' perception of the service is that it is there to provide medical care for pupils taken ill during school. They do not mention any form of preventive service at all. In India school health checks should take place once per year - in practice, the service is, in Kerala, again mainly non-operational. The picture for Uganda appears similar. In Ghana the school health service may be more operational than in the other countries. According to a Maternal and Child Health report for 1992, the school health service visited 25% of schools during the year, and gave 3,500 health talks (which must be set beside the total of over 21,500 schools). This data is, to some extent, confirmed in school studies, many of which say that they have health workers come in to talk to pupils from time to time.

Specific health intervention programmes

An alternative approach to linking health education to services is through a targeted combined programme, focused on a given health intervention. Again, the Philippines has examples including special programmes on deworming, TB control, and school sanitation (WHO/UNESCO/UNICEF 1992). This approach is being planned on a pilot basis in Ghana - as part of a multi-country study - and had been tried in the past (for deworming, for yellow fever vaccination and for epidemic control).

In both the "special intervention" programmes, and school health service programmes, there is usually a "health education" element included. This tends to take the form of "one-off" talks, or possibly several sessions around a particular area (e.g. hygiene and sanitation), unless a more comprehensive approach to health education is already in place.

From the literature there is no evidence of an intervention approach being used to tackle AIDS. (A possible idea for such an approach would be to provide condom distribution or STD services through schools; however, the likelihood of this proving acceptable in much of Africa or Asia, at present, seems remote.)

Quite how such programmes are implemented varies. In some cases, the intervention is planned and implemented entirely by the health service, basically only using schools as an easily accessible venue for a given intervention. In others, school teachers are more actively involved: for example they may actually administer the de-worming tablets, or be trained to monitor aspects of pupils health, or be involved in teaching on a particular issue.

Extra-curricular activities

Health clubs

In order to take these one-off events a step forward, some countries have started to experiment with health clubs. These tend to be more regular extra-curricular activities (e.g. weekly or monthly), attended voluntarily by a sub-section of the school. From this study, some evidence of health clubs was found in Uganda, India and Ghana. In India and Uganda the setting up of health clubs is in the first implementation phase, and little evidence of active health clubs was found in the areas included in the study. In Uganda health clubs are starting to be organised by the Safeguard Youth From AIDS movement, and include in and out of school youth. The AIDS support organisation (Taso) just started to form a youth AIDS club for youths who have experienced the loss of at least one parent. The young people are enabled to share experiences and develop initiatives for peer education on AIDS.

In Ghana, one of the Eastern Region schools has a health club, run by a local GP. Topics are selected by the pupils, and the afternoon's programme is then arranged by the GP. This often takes the form of an activity, followed by a question and answer session.

A similar format is described for Sri Lanka, where open discussions, peer-learning, self-enhancement and community services are part of club activities. The Sri Lanka health club development, like India, is being supported by UNICEF.

In Zambia Dr Baker initiated the Anti-AIDS project under the umbrella of the National Family Health Trust. Anti-AIDS clubs are mainly school-based, initiated and led by students, and supported by interested teachers. Support is also provided by Provincial AIDS support workers and health educators. One example of activities established is recruitment of local youth clubs to develop drama performances.

NGO activities

In several countries, in particular schools or districts, non-government organisations take an active role in health activities connected with schools. This can take many forms (e.g. from working together with teachers in a particular school during school time; using the school simply as an entry point, or as a meeting base for extra-curricula activities). Several religious organisations work in this way, as do planned parenthood groups, youth organisations and the like. A number of the programmes noted both in the countries visited, and through the literature, focus on personal relationships, sexuality and the problems faced by adolescent girls (especially pregnancy/poverty/exploitation).

Examples of involvement of NGOs from the country studies include the Pakistan Youth Organisation's work on AIDS; the Scripture Union's work in Ghana on healthy relationships (which includes reference to AIDS); HEAL, in co-ordination with a number of other NGO's in India works around sex education which includes the development of sex and AIDS education sessions integrated in a module on personal development for schools. In Uganda the Safeguard Youth From Aids (SYFA) movement co-ordinates the activities of NGO's, e.g. community organisations such as scouts, churches, mosques, social and sports clubs, and governmental organisations to help young people in and out of school to protect themselves from HIV infection. Special activities related to the prevention of HIV infection through blood, infections and needles, organised by small clubs or "clans", are encouraged.

WHO's Adolescent Health Programme has produced a lengthy compendium of projects and programmes in adolescent health (WHO/International Youth Foundation 1992). This includes many examples of ways in which NGOs are working together with education and health ministries to address health issues pertinent to young people. Many of these programmes focus on the sexual and emotional health of young people.

Extra-curricular activities of this nature obviously have some advantages over formal schooling, in terms of being more able to introduce innovative communication techniques; however, these need to be additional to rather than instead of core health education teaching if they are to reach a wide range of school-going students in a consistent way.

School health environment

US and UK studies also stress the importance of the school environment in promoting health, and the problems created where "theory and practice" do not match up. A Tanzanian study of a dental health programme (Nyandindi et al 1994) has highlighted this issue, showing the problems (in this case) in teaching children about oral hygiene and avoidance of sugary food, in a situation where few children can afford the tooth brushes and paste recommended, come to school with no breakfast, and can turn only to local vendors for snacks during the day.

The evidence from this study indicates that many of the schools visited have minimal water and sanitation facilities. Those that provide school meals offer a very limited (starch based) diet. Whilst there was talk in some places of regulations controlling food hawkers, these were often either not enforced, or simply meant the hawkers moved a few yards from the school entrance. As is clear from the comments below, the contradiction between health education teaching and school practice does not go unnoticed by the young people. This highlights the importance of paying attention to the school health environment at the same time as working on curriculum development.

> *"We should eat a balanced diet at school but at school we only eat posho and beans year after year." (boy 12yrs P6)*

> *"Our school toilets should be repaired, the pits are broken there is no water for cleaning the toilets after use. our urinals are so dirty to look at, they have green plants grown on them the urine can't pass through because where the urine is to pass it is blocked..... our latrines should be built far away from water source because when the urine is blocked all the faeces will move to the water source." (boy 12yrs P6)*

School/community links

One further feature stressed in the literature is the importance of parental involvement in health education programmes, to ensure that what is learnt at school can be reinforced and developed at home. Evidence that this happens in the four countries studied is generally limited to initiatives already described under the heading of "extra-curricular activities". Teachers from the Lahore schools generally feel that parents are unconcerned/uninterested in their children's' schooling. There is some evidence of Parent-Teacher Associations being operative in some (more affluent) schools in Uganda and Ghana; however, on the whole, these focus on fund raising for the school, and do not get involved in anything to do with student learning.

d. Teaching methods and materials

Curricula outlines and textbooks give little indication of what actually happens in the classroom in terms of the teaching methods and materials used. For the purposes of this study, it was not possible to include much classroom observation. However, anecdotal evidence and reports on school education suggest that, in all four countries, health education, like other aspects of the curriculum, is taught didactically, with little encouragement of student interaction. This, as indicated in the models of health education discussed earlier, provides limited opportunity for young people to develop health-promoting skills and attitudes.

From the literature, it would appear that there are plenty of small and medium scale examples of more active approaches to learning in schools, significantly encouraged by the Child-to-Child movement. A British Council seminar report, "Community Health and the Primary School" (1992) includes details of Child-to-Child work in India.

Kenya, Nepal, Burkina Faso, Sierra Leone, Uganda and Zambia. Developments in this area will no doubt be encouraged by the recent publication of a new Child-to-Child book, **Children for Health : Children as Communicators of Facts for Life** (Hawes and Scotchmer (eds). Child-to-Child Trust/UNICEF, 1993).

The Child-to-Child programmes often help to integrate health education in a range of relevant subject areas, and to develop appropriate and lively teaching materials. For example, in Zambia, the integration of health education in the national curriculum has benefited from the Child-to-Child pilot programmes. The experience developed through these pilot programmes has influenced the decision to integrate health in a variety of subject areas: science, languages, social studies and home economics.

Outreach activities to be carried out by teachers, however, are often beset with problems. Reflection on Child-to-Child programmes in Zambia, for example, show that teachers have to be highly motivated to sustain time consuming outreach activities, which often take place in their free time.

Within AIDS education there are also a growing number of examples of teaching which is moving away from purely didactic approches, to more interactive approaches, though it is not always clear to what extent such sessions are an established part of school life, or are occasional special events, initiated by external agencies.

Some examples of **games** used include:

> "ZigAIDS : an educational game about AIDS for children". This game was developed in Latin America, and is described in Hygie (1991), Vol.10(4), pp.32-35.
>
> "1-4-1 AIDS game" (1992) TALC (Teaching AIDS at Low Cost). This is a game for learning about HIV/AIDS and sexual health in a social context for children, adolescents and adults, in particular teachers, parents and youth leaders.

Some examples of **videos**, of which there are now several available for use with school-aged students, include:

> "It's not easy" (1991) produced by The Federation of Uganda Employees and The Experiment in International Living/Uganda with Uganda Television.
>
> "Unmasking AIDS" (1991) produced by IPPF (International Planned Parenthood Federation), London.
>
> "Karate kids" (1990) produced by Street Kids International, Toronto (cartoon format).

The last two examples are designed for school-aged teenagers, but are, in fact, more suitable for out-of-school youth.

An example of **drama** can be found in the Uganda study, which highlighted the use of drama activities in schools, with the draw and write data giving some indication of the impact this has on young people. South Africa has also developed this approach, such as described by Lynn Dalrymple in "A drama approach to AIDS education : A report on an AIDS and lifestyle education project undertaken in a rural school in Zululand", (1992). In Ghana, theatre has been used with out-of-school youth.

e. The relevance of health education curricula to the lives of young people.

Assessing the relevance of health education curricula can be considered from a number of perspectives:

- Do they address the health issues which **affect** young people (short and long term)?
- Do they address the health issues which **concern** young people?
- Do teaching materials reflect the **context** in which the young people live?

These three questions in turn suggest the use of a variety of techniques for needs assessment for curriculum development. The first emphasises the value of health surveys of young people, and epidemiological analysis indicating long-term health behaviours and their impact on health outcomes. The second emphasises the value of involving young people in curriculum design, through exploring with them their health concerns and priorities. The third question again indicates the importance of involving young people - or at least people familiar with the living conditions and experiences of young people - in the design of educational materials. This section provides an overview of the techniques already developed, and the extent to which they have been implemented and used for curriculum development in Africa and Asia. It includes reference to specific work on AIDS as well as general health.

Surveying the health of young people

Two obvious approaches to establishing the health needs of school students are special surveys, and analysis of school health service statistics.

From the four in-depth studies, only Ghana appears to be developing a significant body of expertise in assessing health priorities for schools, on a national scale. It has already conducted one school health survey and is currently planning another. Health issues identified include dental caries, upper respiratory tract infection, ring worm, intestinal worms and head lice. Whilst this data is intended to inform the school health curriculum, it has not yet been used for this purpose.

The WHO (1992) guidelines on school health education describe several other examples of health survey work. Nigeria conducted a survey of the health status of school children in 1986, the Philippines has carried out specific surveys as a basis for health intervention programmes (e.g. for anaemia, goitre prevention and deworming). Sri Lanka has also used research on factors affecting learning achievement to validate specific health interventions. WHO is also supporting an on-going multi-country study of the health and health behaviours of adolescents (Smith, Wold and Moore 1992). This uses a standardised self-completion questionnaire, administered in schools, under exam conditions. To date, there are no developing countries participating in this research.

India provides an example of the use of school health service data. The medical sector in the Department of Education of the Municipal Corporation in Greater Bombay in India, compiles morbidity data from the school health service visits, to inform on special topics for health education during school health visits.

Finding research studies which may be of benefit to the development of AIDS education proved rather more fruitful than needs assessments on the general health of young people. Such studies were noticeably very much more frequent in Africa than Asia and, within Africa, much more frequent in Eastern and Southern Africa than West or North Africa. In Zambia a questionnaire has been developed to find out what the impact of AIDS is on teachers and students, and what they know about AIDS. The results will be used to develop a curriculum on AIDS education in schools.

Evidence from the country studies indicates that Uganda has developed the most extensive body of literature on AIDS awareness and the sexual behaviours of young people - although on the latter point, Ghana also has a good body of literature (especially focused on teenage pregnancy). Many reported studies are likely to be KAP studies, often evaluative rather than formative, looking at the impact of media campaigns. However, many include useful elements (e.g. summarising important local misconceptions around AIDS or sexual intercourse).

WHO has produced proto-type survey instruments for schools studies on AIDS awareness and health behaviours relevant to AIDS. (WHO Global Programme on AIDS 1989). Whilst this proved too detailed and comprehensive for the current study (which also encompasses other aspects of health education), it includes useful ideas, particularly in looking at the health environment of the school.

Exploring the health concerns of young people

There is rather less evidence, from either the literature or the country studies, of attempts on the part of curriculum planners to explore the health concerns of young people, and build teaching on these concerns. One major development in this area is the pioneering work of Wetton and Moon in the UK, who developed the 'Draw and Write' technique (Williams, Wetton and Moon 1989). The technique was used in the in-depth country studies, and is described in more detail on page 20. It has been used extensively in the UK to explore a range of health concerns (for a recent example see Oakley et al 1995). There are now a growing number of examples of its application in other countries appearing in the literature (Yugoslavia: Zivkovic et al 1994; Australia: Hughes 19??). Five country European study: Newton, Bishop et al 1995). The technique is also promoted in a recent WHO training manual (Weare and Gray 1994) and a publication on AIDS education in schools (Collyer and Lee 1994).

In the in-depth studies, young people were asked to draw and write about what makes them unhappy and unhealthy. Key concerns highlighted by young people in the four countries include:

from Pakistan:

concern about the quality of the environment- with considerable attention paid to pollution from traffic and industry from India:

most frequently mentioned are concerns about potential death of a parent, beatings by parents, and problems at school, e.g. failing exams and problems with teachers. This is followed by concern about food hygiene and diseases

from Uganda:

strong evidence that AIDS is high on the agenda of young people, but that this concern is well embedded in a wide range of other health concerns, many of which the young people are able to describe in considerable detail

from Ghana:

a preoccupation with personal hygiene, coupled with much more heartfelt concerns related to family relationships, school friendships, success and failure at school and personal worries.

The young people were also asked to draw and write about AIDS. Detailed results are presented in Section 2. The variations are striking: in Pakistan researchers were unable to undertake work; the India data showed a wide range of misconceptions and very limited understanding; a much more detailed understanding was seen in the Ghana data, although greater emphasis is given to transmission through cuts than sexual intercourse; in Uganda students described many ways of protecting themselves from HIV, including graphic details of how to use condoms and avoid rape.

One noticeable outcome of using the draw and write exercise in this study was the surprise expressed by many adults (including teachers) of how effectively the young people could express their ideas, and how much more they knew than had been anticipated. Such insight can be built on to prepare materials which are much more likely to touch young people and make them responsive to learning, rather than working only from an "adult" perspective of the world.

Another technique which has already proved fruitful in exploring the sexual practices of young people is the "narrative method", commissioned by the WHO Adolescent Health division (WHO 1992). This involved getting groups of young people in different parts of West and East Africa to create "boy meets girl, girl gets pregnant" stories - through role play and discussion - which were then translated into questionnaires. This enabled young people to piece together their own versions of these stories, and at the same time asked them their own experiences of some of the events in the story (e.g. age of first sexual experience, experience of STDs, pregnancy and abortion.). Results from this work give very detailed insights into both the sexual experience of young people, and the dilemmas they regularly face, with boy/girl friends, peers and parents, as they become sexually active.

Again, this approach to data collection was too specific for this study - but at the same time demonstrates the richness of insight that can be gained from actively involving young people in research about their (sexual) health.

Involving young people in materials design and development

Even if curriculum planners choose not to involve young people in helping to set the agenda for health education, it can be beneficial to involve them in materials development. This might avoid the common problems of including images and advice in textbooks, which are impractical in the context in which the young people live. One interesting example of this is a formative study in the development of AIDS Education for secondary school students conducted by the National AIDS Research Programme of the Medical Research Council in Cape Town, South Africa. Focus group discussions were conducted with young people to gain an understanding of their experiences of relationships and sexual health needs.

The study provided the basic information for the production of a photo novella "Roxy : Life, love and sex in the nineties", and other resource materials such as a chart illustrating the use of condoms. The materials were based on authentic experiences of young people and aimed at "... addressing issues relating to students' needs to cope with experiences of sexuality and risk situations and addressing safer sex" (Mathews et al 1993). Problems subsequently arose when trying to implement the materials, because they were seen to conflict with "teacher's values, concerns and perceived moral responsibilities". As a consequence many teachers refused to use the resources provided. This is perhaps a salutary tale - but one worth reflecting on further. How can educators hope to influence the lives of young people if they are unable to accept where those young people are coming from?

Opportunities for development

To what extent do teachers feel both willing and able to take on the tasks of health and AIDS education?

Evidence from the literature on health education generally provides little insight into this. The country studies asked teachers about their views on providing health education. In Pakistan and India they do not feel it to be a problem - mainly because it is barely implemented, and they see little likelihood of it becoming a priority. In Ghana, teachers do not see teaching round health to be problematic. They stress the importance of providing adequate hygiene education, but do not go much further in developing their ideas. In Uganda, teachers indicate that they feel children should be taught in more depth, but covering the same issues already addressed. Some of the teachers stress the importance of making the curriculum and textbooks more relevant to the local context. They also put strong emphasis on prevention. They see lack of syllabi, textbooks, teaching resources and training as constraints to further development. They also recognise the difficulties of teaching about health in an essentially unhealthy environment. The range of comments from these teachers indicates a much greater level of awareness and readiness for development than is apparent in the other countries.

Focusing on the specific aspect of AIDS education, a somewhat different reaction is apparent generally. Most teachers express some hesitation to become involved, because of the embarrassment many feel in tackling issues related to sex. The consensus statement on AIDS in schools by the World Consultation of Free Teachers' Unions on education for AIDS prevention, organised by UNESCO in 1990, noted that whilst teachers felt they had a role to play in AIDS education, they felt they would be unlikely to have much effect on young people's behaviour. They also unanimously supported the idea of involving non-teaching personnel as resource persons. Whilst this certainly makes sense in developing their own skills, what it may also be saying is that teachers would rather have health professionals tackle the issue - which would almost inevitably relegate it to being a "one-off" annual session in the majority of cases.

Looking at the case study data, teachers' views cover the full spectrum of response, from indicating ignorance of HIV/AIDS, and disinclination to take it on board, through to making innovative suggestions as to how the use of condoms can be promoted and taught practically, and how people with AIDS can be invited into schools, to help overcome negative attitudes.

In Pakistan, teachers have no real views on the matter - through lack of insight themselves. Those who did comment feel that specialists must be involved, since teachers have no knowledge.

In India, teachers expressed general embarrassment about dealing with sex and AIDS in school. They feel sexual transmission of AIDS should not be talked about as this would just encourage the children to take an interest in sex. They also feel any teaching in this area should be left to health science teachers, and that they should be trained.

Ghanaian teachers echo the embarrassment, but are more willing to talk about that embarrassment. They agree they should teach "the basic information" , and start in primary schools. Teachers (like the young people) currently put much greater focus on the transmission of HIV by blood (open wounds/shared needles/ transfusions), than on sexual transmission. Here again they caution against going into detail for fear of encouraging promiscuity. Several teachers feel that outside specialists (health workers) should deal with the issue - to answer questions they are unable or embarrassed to address.

In Uganda teachers accept AIDS education as a priority, and generally feel that it should start from Primary 1. Some continue to express the view that, for example, focus on condom usage will promote promiscuity. But several feel that this and other issues should be taught, and taught practically. They agree they need further support, but see "outside agents" as additional to rather than instead of their own efforts, and suggest including people with AIDS in school programmes. They also feel they are more appropriate providers of AIDs education than parents. They indicate the importance of the subject being taught by same sex teachers (ie: girls taught by women and boys by men).

All the evidence from the country studies seems to suggest that whether you are talking about health education generally or AIDS in particular, the degree to which teachers express concern and indicate understanding of the issues, is clearly influenced by the level of programme implementation. The more developed the programme, the more readiness there appears to be on the part of teachers to consider further development.

Conclusion

Policy makers in developing countries need to address a range of issues if health education in schools is to have a significant effect on influencing the awareness and behaviour of young people. The health education model proposed earlier in this section is used again in figure 2 to summarise graphically the complex issues to be considered.

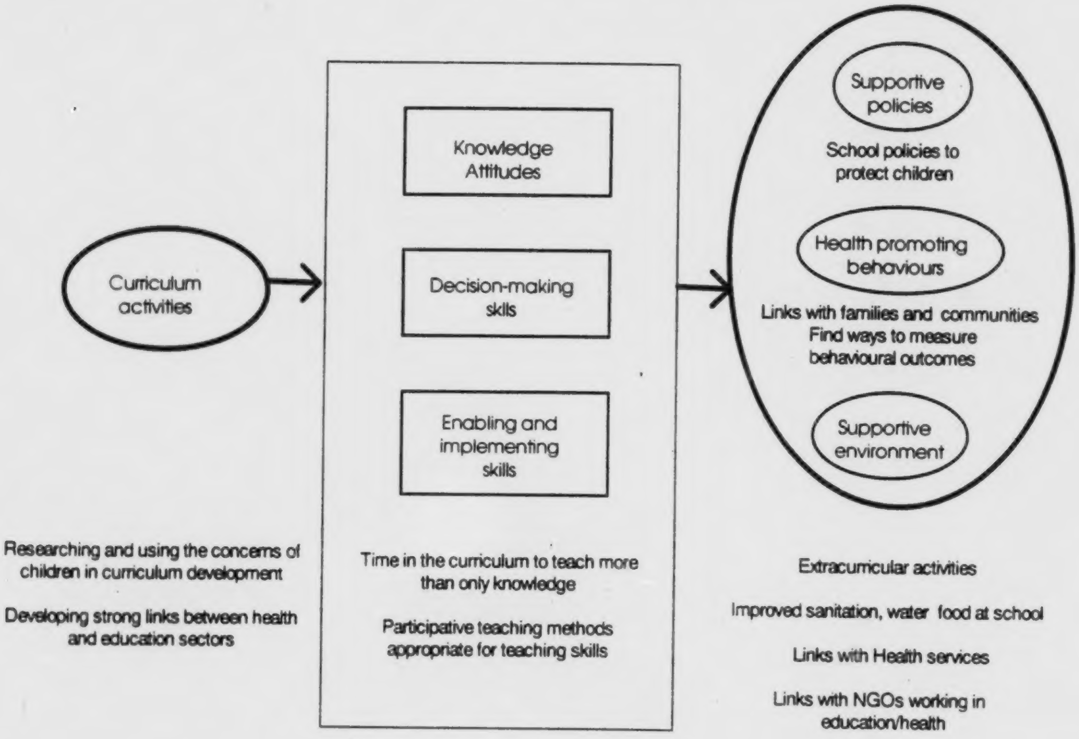
Curriculum activities
Knowledge Attitudes
Decision-making skills
Enabling and implementing skills
Supportive policies
School policies to protect children
Health promoting behaviours
Links with families and communities
Find ways to measure behavioural outcomes
Supportive environment
Researching and using the concerns of children in curriculum development
Developing strong links between health and education sectors
Time in the curriculum to teach more than only knowledge
Participative teaching methods appropriate for teaching skills
Extracurricular activities
Improved sanitation, water food at school
Links with Health services
Links with NGOs working in education/health

Figure 2 Issues facing policy makers.

SECTION 2

CASE STUDIES: METHODOLOGY AND FINDINGS

Methodology

a. Aims of the in-depth studies

There were two basic aims for the in-depth studies:

1) to describe current policy and practice within four selected countries (two in Africa: Uganda and Ghana and two in Asia: India and Pakistan)
2) to explore the potential for development within those countries in health education generally, as well as in AIDS education specifically, within the formal primary and secondary school curricula.

In order to describe policy and practice the in-depth studies set out to:

- collect evidence from policy makers, in health, education and other relevant government departments, non-government organisations and donor agencies on both stated policy and current implementation plans for health and AIDS education in schools;
- compare this evidence with data collected directly from schools (from teachers, students and parents), to see whether polices and plans are actually put into practice.

In order to present reasonable suggestions for future development, the in-depth studies set out to :

- describe those issues which young people, teachers and parents consider important in health and AIDS education;
- collect evidence from government offices, donors and NGOs on their perceptions of priorities for health and AIDS education;
- collect evidence from both the field level and policy level of likely constraints to future development in health and AIDS education.

The overall study design was determined by the Liverpool research team. Collaborating centres within each of the countries then helped to refine instruments, and undertook local organisation of data collection. Analysis was carried out in Liverpool.

The four collaborating centres were :

Pakistan :	The College of Community Medicine, Lahore
India :	The Institute for Management in Government, Trivandrum, Kerala
Uganda :	The Institute of Public Health, Makerere University, Kampala
Ghana :	The Health Research Unit, Ministry of Health, Accra

b. The Policy Studies

The two main approaches to data collection on policy and central planning related to health and AIDS education were :

a) key informant interviews
b) analysis of documentary evidence.

Table 3 summarises the key informants interviewed in the four countries. Wherever possible, documentary evidence was collected to substantiate information collected through interviews.

c. The schools studies

Five approaches to data collection were used to shed light on "practice".

The primary data collection tool was :

the draw and write technique, undertaken with a selection of pupils from each of a small selection of schools in each country.

This data was then supplemented with:

Focus group discussions with subgroups of the pupil samples.
Focus group discussions with selected teachers from the same schools.
An observation checklist/interview schedule to collect basic information about the schools, with special emphasis on the health environment of the schools.
Focus group discussions/interviews with a small sample of parents.

The draw and write technique

The 'Draw and Write' technique is a novel, but increasingly accepted approach to data collection for curriculum design for health education. It has been used extensively in the UK (e.g.: Williams, Wetton & Moon 1989; Oakley. 1995) and has been adapted elsewhere in Europe (e.g. Zivkovic et al 1994). To date there are no published accounts of its use in developing countries. However, the research team had had some experience of related approaches, including work by Francis on school children's understanding of eye health in Ghana, Zambia and Kenya. The use of drawing tasks to explore health issues is also now being developed within the participatory rapid assessment field (see, for example, Wallerstein 1992; Welbourn 1992). Some preliminary work from the research team, along with methodological guidance, is reported in Shaver, Francis and Barnett (1993).

The method engages young people in a relatively open-ended exercise, in which they are invited to draw pictures on some aspect of health, and then label or describe their drawing. Children unable to write are encouraged to whisper what they want to write to the facilitator, who then writes their ideas down verbatim.

In this case, the young people were first asked to draw and write about what makes them unhappy and unhealthy. They were then asked to draw and write about AIDS. The AIDS "invitation to draw" was varied across the four countries, according to advice from collaborators on the level of AIDS awareness in the country. In India, young people were asked to draw and write what they knew about AIDS. In Ghana, they were asked to draw and write what they knew about AIDS, especially about how to protect themselves from AIDS. In Uganda, they were asked to draw and write about how to protect themselves from AIDS. In Pakistan, this part of the study was not attempted at all. This is because the condition of access was that children not be questioned directly about their knowledge of AIDS or sexual awareness. In addition, the local researcher felt that it would be improper to introduce the topic of AIDS with children unless they themselves indicated that they had heard about it. Similar problems with gaining permission to conduct anthropological studies with an AIDS component in rural villages were mentioned by our key informant at UNICEF. A more flexible time-frame to conduct this research might have enabled us to explore some of the official concerns and negotiate access to conduct inquiry on these sensitive topics.

Responses to the first question shed some light :

a) on what young people are taught about health (through school/parents/media)
b) those things which most worry and upset young people - which may suggest areas for future development in health education in schools
c) whether AIDS is seen as an important aspect of the lives of young people (the issue of AIDS was not raised by the researchers in the early stages of the exercise. An initial indication of the level of awareness was the extent to which AIDS/HIV was spontaneously mentioned).

Responses to the second questions provided insight into the main messages young people can put forward about AIDS (rather than whether or not they can answer set questions). These spontaneous comments can also highlight areas of misunderstanding.

A major advantage to this approach to data collection is that it enables young people to express their ideas on health in their own words and images - rather than imposing an external structure (as is the case in closed-question questionnaires). The use of the visual medium can provide insight into how information and concepts are understood, often capturing facets of children's understanding which they would be unable to express in words.

e. Sampling

Given the exploratory nature of the study, purposive sampling was used throughout - from selection of countries down to the selection of pupils and teachers within schools. In none of the countries was it possible to do more than canvass the views of a small selection of parents - therefore, the data from parents should be treated with caution.

Between six and eight schools were included from each country - with the main sample coming from one major city in each country. Whilst this undoubtedly gives a distorted view in terms of countries as a whole, our concern was mostly focused on what may be possible to achieve in the relatively privileged urban sector. It was not within the scope of this study to extend the study into remote rural areas where the quality of schooling is likely to be poorer.

In selecting schools the basic principle used was to ensure variety. Here, collaborating institutions provided guidance on major differences in urban schools - for example:

- co-educational/single sex
- having a particular religious affiliation
- public or private sector
- serving different socio-economic groups within the population
- 'model' schools where educational innovation, if it is happening, should be most obvious.

Within schools, pupils were selected from across grades and classes. Small groups of students were taken from each class. Teachers were asked to make the selection of pupils at this stage, but were asked not to select only their most or least able pupils, but again, to give a variety. The exercise was conducted with all small groups together.

Immediately following the draw and write exercise, a subsample of the group was asked to remain with the researchers for a group discussion, which further developed ideas from the draw and write exercise, and explored other aspects of health education and AIDS in school.

Discussions with groups of teachers focused mainly on science, physical education, home economics and (if available) health education teachers - i.e.: a selection of teachers which the head teacher felt would be most likely to be involved in teaching related to health.

Finally, where possible, parents were interviewed individually or in group discussions. In some countries it was possible to contact parents of children in the study schools. In other cases, adults who had children at school were canvassed (e.g.: in the market place, or though church meetings). Table 3 summarises the samples for each country.

f. Data analysis

The data from the school studies resulted in over 3,000 sets of open-ended drawings and text from young people, plus the interview and group discussion scripts. Parts of the student data from both India and Pakistan were written in Malayam and Urdu respectively, and required translation. The vast majority of the Ghana and Uganda data were in English, although in some cases colloquial terms needed to be translated. Translation was undertaken by the collaborating centres, and some cross checking subsequently undertaken in Liverpool.

The complete data sets were sent to Liverpool for analysis, with the main burden of the analysis being the students' drawings and texts. A coding frame was developed for the student data. This was developed initially from a thematic analysis of around 100 scripts per country, and then subsequently ordered in the light of recommended curricula contents on health and AIDS education proposed by WHO (refs). In addition a simple "YES/NO" analysis was carried out on the "unhappy/unhealthy" scripts coding whether or not HIV/AIDS appeared at this stage.

Three people were involved in coding. Coders coded both text and visual material - but only took from visual material any new insights which the text left out. Substantial cross checking of coding was carried out, to ensure the accuracy of the data. The data (now in numerical form) was subsequently entered into SPSSpc for analysis. Simple frequency and cross tabulation data were generated.

Following the basic statistical analysis, it was possible to return to the original data to select both "typical" and "exceptional" quotations and images, to bring the text to life, and to enable the young people to speak for themselves.

Given the relatively small quantity of data from interviews, discussions and observations, this data was simply typed up verbatim, and then analysed by hand.

Table 2: Summary of key informants met in each country

Type of organisation	Pakistan	India	Uganda	Ghana
Health	**Collaborating institution: College of Community Medicine, Lahore (includes AIDS screening lab)** • Director General Health Services, Punjab • Civil Secretariat: Secretary for Health, Punjab. • Provincial Co-ordinator, AIDS Programme, Punjab • Health Education Development and Resources Unit (HEDRU) project consultant • Health Education Officer, Punjab, and Project Co-ordinator for HEDRU	**Collaborating institution: Institute of Management in Government Trivandrum India.** • Additional Director of Health Services and AIDS Control Programme Officer. • Directorate of Health Services: Additional Director School Health Education; District Immunisation Officer • Executive Officer Health, Municipal Corporation of Greater Bombay.	**Collaborating institution: Institute of Public Health, University of Makerere, Kampala** • Permanent Secretary Health, Health Education and AIDS Control Programme, MoH. • Deputy PHC Co-ordinator formerly IEC co-ordinator for the AIDS Control Programme. • Director PHC and Health Education Department, MoH. • District Health Educator, Tororo District.	**Collaborating institution: Health Research Unit, MoH** • Director, Parasitic Disease Control Programme. • Co-ordinator, National AIDS control programme. • Health Education Unit, Korle Bu Hospital
Education	• Municipal education department: • Additional Secretary, Education. • Curriculum research and development centre, Punjab Education Department.	• Institute for Education: Director; Population Education Department Project Officer; Co-ordinator School Health Education Programmes of UNICEF Assisted Schemes. • Secretary Examination Board. • Government Teacher Training College (Principal; Professor Educational Psychology.) • District Education Officer (Inspectorate). • Government Teacher Training Institute (Headmaster and brief meeting with class of female students.) • Co-ordinator School Health Programme, Municipal Corporation. Bombay • Education Officer, Education Department Municipal Corporation. Bombay	• Commissioner for Education and Acting Permanent Secretary and Acting Permanent Secretary, MOE. • Acting Commissioner for the Inspectorate. • Secretary Uganda National Examination Board, and Head of Examination Section for Primary Schools. • Co-ordinator, School Health Education Programme MOE. • Kampala Council Deputy Education Officer for Inspectorate, • Institute for Teacher Training. • Assistant Inspector for Schools.	• Deputy Minister, Ministry of Education • Director General, Ghana Education Service • School Health Programme (Ghana Education Service) • Director, Teacher Education Division of Ghana Education Service • Director, Guidance and Counselling, Ghana Education Service • National Co-ordinator, Administrator and Director of Materials Development, Non-Formal Education • Regional Director, Non Formal Education, Greater Accra Region. • Observation of an adult literacy class

Table 2: continued Key informants

Type of organisation	Pakistan	India	Uganda	Ghana
Donor agencies	• UNICEF Islamabad (Project Officer: Water, Sanitation, and Hygiene Education; Project officer (Child Health) & focus person for AIDS, UNICEF; Project officer: Education of Children in Especially Difficult Circumstances; Project Officer, Safe Motherhood; Project Officer, Basic Education,) • UNICEF Lahore (Resident Programme Officer; Women in Development and Children in Difficult Circumstances; Senior Programme Assistant.) • CIDA (Communications Specialist, Centre for Health Communication, National Institute of Health). • Primary Education Reform Project. • British Council	• British Council • (Library, Kerala) • Project Officer Health UNICEF. (Bombay)	• Health and education planner ODA (currently in Zambia; formerly working for UNICEF in Uganda) • British Council Acting Director. • UNICEF: Acting Representative; • Training Manager; • AIDS Programme Officer UNICEF.	World Bank: Education Adviser • USAID: Chief, Education and Human Resource Development • UNICEF: Child-to-Child programme • ODA education field manager and co-ordinator of the teacher education project • Save the Children Fund: Deputy Director and Medical Advisor, • Acting Director British Council • Second Secretary Aid, British High Commission
Other	• Health Education and Adult Literacy Project (HEAL) • President of Pakistan Crescent Youth Organisation, All Pakistan Youth Federation, Commonwealth Youth Forum (Asia).	• Health Education and Adult Literacy Project (HEAL) • All India Catholic University Federation(AICUF), Trivandrum Diocese • Caritas: India Regional Officer	• AMREF: Director • The AIDS Support Organisation (TASO): • Training manager • Research co-ordinator Child Development Institute.	• Principal researcher, school health intervention programme (Imperial College, London) • Scripture Union: Co-ordinator of the Aid for AIDS programme • Director, YMCA, Accra

Table 3: Summary of the samples for the four school studies

	Pakistan	India	Uganda	Ghana	Grand total
Number of schools	7	7	7	8	29
Total number of pupils involved in draw and write exercise	625	1341	688	478	3132
Boys	296 (47%)	685 (52%)	391 (57%)	273 (57%)	1645 (53%)
Girls	304 (53%)	623 (48%)	292 (43%)	203 (43%)	1422 (45%) (missing=65)
	Grades 6-8: 40% Grades 9-12: 60%	Grades 6-8: 43% Grades 9-10: 57%	Primary: 36% Secondary: 64%	Primary/JSS: 40% Senior secondary: 60%	
	Age range: 10-19yrs Mean age: 13.5yrs Modal age: 13yrs	Age range: 10-16yrs Mean age: 12.7yrs Modal age: 13yrs	Age range: 10-30yrs Mean age: 15.8yrs Modal age: 13yrs	Age range: 10-23yrs Mean age: 15.3yrs Modal age: 16yrs	Age range: 10-30yrs Mean age: 15.8yrs Modal and median age: 13yrs 88% of total sample aged 10-16yrs
Total number of pupils involved in group discussions	38 (individual interviews)	48	65	60	211
Number of group discussions		6	7	8 (+ 22 small group discussions with students from two schools in Eastern region of Ghana = 110 students in all)	21
Total number of teachers in group discussions	52 (individual interviews)	22 6 groups	49 5 groups	30 6 groups	153 17 groups
Total number of parents (individually and in groups)	49 (individual interviews)	33 (in six groups)	0	48 (two groups of 10, plus 28 interviews)	130

FINDINGS

Summary tables of the four in-depth studies

The following pages summarise the main findings from the four country case studies, enabling the reader to compare current policy and practice on health and AIDS education in these different settings. The first matrix provides an overview of health education. The second matrix draws together the specific findings related to AIDS education.

To date, evidence from textbooks, teachers, parents and young people suggests that where AIDS education is included in school health education, it focuses only on the basic information of the nature of the disease, its transmission, and strategies for prevention. There is no evidence of AIDS education focused on the additional recommended objectives of skills development for delaying onset of sexual activity, or for establishing "safe sex" practices, and only limited evidence from Uganda of AIDS education targeted at developing more positive and supportive attitudes towards people with AIDS.

Health education: general context

	PAKISTAN	**INDIA**
Population	124.7 million	844 million
Core health education provision: Links between the health and education sectors and donor and NGO interest in Health Education	• Ministry of Health: IEC (Information, Education and Communication) centre within the MoH at Provincial level. Primarily involved in production of materials for mass media campaigns. • Minimal school health service (does not appear to be operational). • Ministry of Education: no individual or group with responsibility for liasing with the health sector, or for guiding/developing health education • No structures or staff in place, either in schools or within the health sector, to support health education in schools at any level. • Limited interest from UNICEF in school health education (focused mainly on basic resource for water supply and sanitation). • Some examples of innovative health education work through NGOs (e.g.: Health Education and Adult Literacy, Lahore).	• Ministry of Health: school health service in place, but not very active: Central IEC(Information, Education and Communication) facilities • Ministry of Education: no specific focus for health education within the Ministry at state level. • Some coordination between health and education for curriculum development. • District level committees to plan school health services, which could be strengthened and focused also on health education • UNICEF has expressed interest in strengthening the school health education programme by supporting the Directorate of Health Services and the Institute of Education in developments (as yet still at a planning stage).
Health needs assessment related to young people	• No large scale work apparent at any level to address the health needs or future health education of school students. • UNICEF report on Primary Education Reform in North West Frontier Province highlighted diarrhoeal disease, iodine deficiency disorders, eye and hearing problems and malaria. • Upper respiratory tract infection and diarrhoea indicated as problems for young people in Lahore (anecdotal evidence)	• No comprehensive, large scale studies available for Kerala • Important diseases are malaria, URTI, measles, gastrointestinal tract infections, non communicable diseases and accidents. •

	UGANDA	GHANA
Population	17.6 million	15.55 million
Core Health Eduction Provision: links between the health and education sectors, and NGO interest in health education	• Ministry of Health: Health education division within the MoH which is responsible for the Health Education Network (HEN), which includes 40 district health educators, 66 assistants, and has plans to train further assistants, so there is one per sub-county (760 in all). A key task for these staff is to train teachers in health education. HEN is coordinated through a National Health Education Steering Committee. Also school health service run by MCH division (not fully operational). • Ministry of Education and Sport: Responsible for the School Health Education Programme (SHEP), with support from the Inter-Ministerial Advisory Panel (IMAP), involving MoH, MoAgric., MoWomen in Development, MoLocal Gov. and donor/NGO reps. • Considerable donor (UNICEF, SIDA, CIDA, USAID and World Bank) and NGO involvement in health education - supporting Child-to-Child (implemented by the Institute of Teacher Education, Kyambogo); diploma in health education; book scheme for SHEP; other SHEP activities; major focus on HIV/AIDS	• MoH: Technical Co-ordination and Research Division responsible for health education - working through a central resource centre in Accra. Also school health service run by the MCH/FP wing. • MoE: School Health Programme within the Ghana Education Service. Recently established. No staff with training in health education. • Steering committee in place, but little activity on the ground as yet. • No staff at regional or district level in either health or education with special responsibility for or training in health education. Only one other health education resource centre, in Kumasi, operating within the Metropolitan Authority. • Some donor interest (UNICEF and ODA) in developing Child-to-Child in schools, and in testing a deworming and micronutrient supplementation programme in schools.
Health needs assessment related to young people	• No comprehensive school health survey has been carried out. • Wide range of studies available on adolescent sexuality (see AIDS matrix for details)	• school heath survey, involving 16 schools, 1,620 JSS pupils, and 104 teachers indicated dental caries, URTI, ringworm, head lice, and intestinal worms to be problems. Survey highlighted poor school health environment and minimal time devoted to teaching around health issues. • Further survey planned to assess health needs of both in and out of school youth.

Health education in schools: curriculum activities

	PAKISTAN	INDIA
CONTENT AND METHODS		
Health education in Primary Schools	Class I-V: Health education is covered within the "Physical and health education" curriculum. However, this is non-examined, and hence more apparent in theory than practice. Methods: didactic.	• Health education integrated in health and physical education; part also in biology. 7 subjects taught. • Health education is examined as part of the biology and health science exam. Emphasis is on theory. • Teaching methods are didactic despite suggested interactive learning methods in syllabus.
Health education in Junior Secondary Schools	Not applicable	• Similar to above
Health education in Secondary Schools	As at primary level, there is "Physical and Health education". Where it is scheduled, it is basically PE.	• Health education integrated in biology and population education. 9 subjects in biology and 4 in population education.
Examples of available innovative health education materials and approaches	HEAL (Health Education Adult Literacy) project has developed a participative materials production process. Ideal for small scale development projects - and may provide fruitful starting point for larger scale curriculum development.	• Slides and photographs used to illustrate different diseases.
TEACHER PREPARATION		
Health education in teacher training: basic and in-service provision.	• No evidence of health education preparation during teacher training. As with the school curriculum, health education is seen as synonymous with physical education. • No evidence of in-service training focused on health education	• Included in curriculum for biology and science. • Apparently no orientation to health education takes place as this is said to be done by health personnel. • 1000 teachers trained in 2 day training programme initiated by UNICEF. • HEAL also provides some orientation for teachers.
SUPPORTIVE ENVIRONMENT		
Additional support for health education within the school context	• Non-operational school health service, which is perceived by teachers, parents and health officials as "medical care". • UNICEF studies from North West Frontier Province indicate extremely poor hygiene standards in schools, with minimal provision of basic water and sanitation services. • No further evidence is available.	• Action plan developed to implement health clubs. Implementation in starting phase. • Population education movement organises competitions for students (writing essays, painting, public speaking, quizzes); has implemented a 'village adoption' scheme. • Health checks and immunisation planned for all schools once a year. Implementation is irregular. • Schools in Trivandrum have basic water and sanitation facilities. Unable to comment more broadly.

	UGANDA	GHANA
CONTENT AND METHODS		
Health education in Primary Schools	• Health education integrated and examined into basic science curriculum; 7 subjects taught • Health education is examined in the primary leaver examinations. Positive in that it receives time; problematic in its emphasis on exams rather than life skill training. • Teaching methods are generally didactic and teacher centred despite input on different methods in teacher training colleges.	P1-P6 (6-11yrs) 9 subjects taught. Health education "integrated" into various subjects, especially Life Skills, but also touched on in Agriculture, Science, Social Studies, Cultural Studies. Methods: syllabus recommends interactive teaching, with practical elements. In practice, this is the exception rather than the rule.
Health education in Junior Secondary schools	• A special syllabus for health education was developed but not yet implemented. Teachers question if space will be available in the curriculum.	JSS 1-3 (12-14yrs). Curriculum similar to primary. Most substantial "health input" can be seen in JSS Life Skills textbook 3, chapter 9.
Health education in Secondary Schools	• Same as for secondary junior	SS 1-3. 7 core subjects plus 5 areas of specialisation. Health again covered in the "core", especially Life Skills, and within the vocational specialisation, Management for Living.
Examples of available innovative health education materials	• Special school health kits for teaching in primary schools on AIDS, water and sanitation, diarrhoeal disease and immunisation were developed and are used by teachers. • Syllabi and textbooks were evident in schools visited in Kampala but might not be as well distributed in rural areas.	Key textbooks and syllabi available in all the schools visited (though this may not reflect practice in rural areas). No further support material evident.
TEACHER PREPARATION		
Health education in teacher training: basic and in service provision	• Training of teachers in health education was carried out through in service training until 1992. • Health education will become a special subject area. The syllabus is nearing completion and 50 tutors of teacher training colleges are trained.	• While Life Skills is a core subject throughout primary, junior and secondary education, and includes a reasonable health element, it is not a compulsory part of teacher education. Hence teachers may have little or no preparation for teaching health related issues. • Limited evidence of any teacher training encouraging teachers to use practical /interactive teaching methods in class. • No evidence of in-service training focused on health education.
SUPPORTIVE ENVIRONMENT		
Additional support for health education within the school context	• Innovative activities sponsored by a range of organisations especially on HIV\AIDS. • Not so evident are activities related to other subject areas except the Child-to-Child extra curricular activities. • Health personnel do provide some input in the schools both through the provision of immunisation and yearly health check services, and through teaching specific health issues in schools. However, services are irregular. • School environments differ substantially in terms of sanitation and water. Some school environments in the rural areas are very poor.	• School health service 1992 indicates "coverage" of 25% of schools. Included 3,464 "health talks". • Some evidence of certification of food vendors on school compounds • Ad hoc school health clubs can be found, but no general provision • Some local NGO work (primarily church related) on moral education, using schools as their venue. • Pilot studies in progress testing specific school health interventions on deworming and micronutrient supplementation.

	PAKISTAN	INDIA
THE CONCERNS OF YOUNG PEOPLE		
Issues/concerns highlighted by the young people (only issues mentioned by 20%+ included).	n=625 52% Dirty environment (including general unhygenic surroundings, problems with refuse/rubbish and contamination of water sources) 44% Flies and mosquitoes 33% Food hygiene 31% Pollution (traffic/industrial)	n=1341 39% problems with parents 36% problems at school 34% food hygiene 29% diseases 26% personal worries 25% environmental hygiene 25% pollution
OPPORTUNITIES FOR DEVELOPMENT		
Evaluation of health education in schools	None (nothing to evaluate)	• No systematic baseline on school aged children in Kerala. • No evidence of evaluation of health education programmes carried out.
Teacher and parent support for developments in health education	• No suggestion from teachers of need to develop on current (minimal) provision. Teachers also mention several constraints-lack of training, resources, syllabus, or time within current overcrowded curriculum. • Parents reflect these views - simply indicating that hygiene education is important. Only one out of 49 mentioned sex education, and stressed that the religious context should be considered at all times.	• Teachers support a more practical approach to teaching HE. They also point out constraints: pressure to teach exam issues, lack of resources. • There is a general feeling that no real change is needed. Some suggested more emphasis on hygiene and 2 mentioned the need for sex education. • Parents support the subjects currently taught. None mentioned sex or HIV\AIDS education without prompting.
Promising options for development	• Essentially starting from a "clean slate" • UNICEF involved in pilot studies on the development of a Lifeskills curriculum, where health is included. • Given the "medical model" of school health which pervades, targeted health interventions may have better chance of success than more general preventive health education work. Here, provision of basic water and sanitation facilities is clearly a priority which it will take many years and substantial resources to address. • It is unlikely that schools would, on a large scale, be able to adapt or develop the more participative education required for the development of 'health promoting' skills and attitudes. It may prove more beneficial to explore NGO involvement on specific issues, in targeted areas, for this type of more interactive learning.	• Important to strengthen existing initiatives and develop these further: • In particular: • Support development of health clubs by providing sufficient resources and support for follow up, monitoring and evaluation. • Take up the suggestion to establish co-ordination committees at national and district level between State health services and education. • Support and strengthen school health services.

	UGANDA	**GHANA**
THE CONCERNS OF YOUNG PEOPLE		
Issues/concerns highlighted by the young people (only issues mentioned by 20%+ included)	n=688 50% - uncovered food, contaminated drinking water and unwashed food 49% - broken latrines, dirty water sources and dirty pit latrines 49% - relationship with parents 38% - local environmental hygiene 36% - specific diseases including 23.5% AIDS 30% - not enough food and unbalanced diet 30% - vectors 24% - fear of failure in school and problems with teachers 24% - accidents 23% - political\social issues 20% - relationships with friends	n=478 47% - Relationships with parents 45% - Personal/emotional problems 45% - Diet 37% - Environmental sanitation 34% - Relationships with friends 32% - Problems at school 31% - Being "sick" 30% - Social/political concerns 28% - Personal hygiene
OPPORTUNITIES FOR DEVELOPMENT		
Evaluation of school health education in schools	• Evaluation of SHEP and Child-to-Child is carried out and acted on: (1991 internal and 1993 external review of SHEP.)Action taken includes: teacher training syllabus developed; material development now involves stakeholders; plans to decentralise material distribution, monitoring and evaluation.	• None yet undertaken on the general health education provision. Study of family life education in Kumasi schools indicated limited implementation, constrained by resources, and by parental and teacher resistance - with the commonly held view that "sex education increases promiscuity".
Teacher and parent support for developments in health education	• Teachers support current approaches and suggest changes to make teaching more relevant and practical. • Hygiene, prevention and treatment of disease are emphasised by teachers. • AIDS is seen as important and is clearly supported by teachers. Many feel that sex education and relationships should be part of the curriculum. • Teachers stress the need "to practise what they teach", i.e. smoking; for schools to create healthy environments; and for parents and teachers to support healthy activities.	• Current health education teaching considered to be sufficient. Teachers stress the importance of hygiene education. Teachers express embarrassment and some reluctance about teaching sex education - but agree that it should be in the curriculum. • Parents support the importance of hygiene education - but again suggest little further. A small number suggested the importance of sex education (none seemed opposed to it). Several, when probed on specific diseases, felt AIDS should be addressed.
Promising options for development	Strengthen and build on existing developments rather than attempting further innovation. In particular: • Improve co-ordination at district level • Formulate objectives in behavioural terms • Improve distribution of materials and supervision at district level. • Improve school health services • Ensure basic water and sanitation facilities. • Develop the initiative for male and female teachers to take the role of counsellors in schools and establish public codes of conduct for teachers and pupils. • Strengthen Child-to-Child and SYFA initiatives through improved co-ordination at district level. • Implement comprehensive sex education through Child-to-Child, SYFA, TASO and other NGO's. Continue training of teachers, especially female teachers and emphasise interactive methods.	Important to build on and develop existing structures and provision further, rather than attempting further innovation. In particular: • strengthening the School Health Programme (SHP), and developing its link with the Ministry of Health • ensuring that the SHP makes full use of the available needs assessment data for curriculum planning and materials development • strengthening the School Health Service, again in close collaboration with the SHP • ensuring widespread dissemination through both health and education of the results of the school health intervention initiatives, in order to assess its future potential.

AIDS education: general context

	PAKISTAN	INDIA
AIDS cases, and availability of data on sexually transmitted disease and teenage pregnancy	• 24 AIDS cases acknowledged (August 1992). • No available data on STDs or teenage pregnancy	• First AIDS cases reported in 1987. Since then 242 cases reported(1992). • Kerala has reported 17 AIDS death, 154 sero positive cases and 26 AIDS cases. However under reporting is generally accepted. • Estimates run from 500,000 to 2.5 million sero positive cases for India as a whole. • No estimates or health information data was available for teenage pregnancies or STD rates in Kerala.
Extent to which AIDS is perceived as a priority by government and by donors	• Denial (1993) at central level that there are more than a handful of cases of HIV/AIDS. • Some evidence that there is growing acknowledgement that it may be more of a problem than is currently accepted. • However, not seen as "priority" - certainly not priority for young people.	• Acknowledged by MoH as important disease and general IEC activities prioritised. • Education sector has started looking at the need to teach about it but not a strong priority as yet.
Agencies involved in AIDS education and the structures within which they operate	• The National AIDS Control Programme has so far focused on training for medical specialists, and religious leaders, not on public education. • UNICEF is working with the government on an AIDS education programme - but this is still at the planning stage. • Some NGOs (eg: Pakistan Crescent Youth Organisation; Health Education and Adult Literacy project) starting small scale work in AIDS education. • No co-ordination appears to be in place, and no direct link made with between the health and education sectors.	• National AIDS Control Programme established in 1987. Started initial surveillance and awareness raising IEC activities . • A start was made to teach health personnel about the disease. • In education sector no concrete programmes to teach HIV\AIDS exist, however the intention is there. • Initiative by HEAL India to start teaching in schools.
Evidence of needs assessment related to young people on sexual health, STDs/AIDS	No data available on STDs, nor on anything to do with the sexual health or sexual activity of young people.	• No data available on STDs or sexual activity of young people. • HEAL India conducted very small scale study which shows concern and interest of young people around sexual issues. • Baseline study on HIV/AIDS has been conducted but data not available at time of study.

	UGANDA	GHANA
AIDS cases, and availability of data on sexually transmitted disease and teenage pregnancy	• 24,977 cases officially reported (June 1991) with cases doubling every 8 -12 months. Seen as top priority being the leading cause of adult death. AIDS incidence peaks in the 25-29 yr. age group for males and 20-24 yr. age group for females. • Teenage pregnancy is acknowledged as a problem. Average age for first sexual experience shows wide variety per region. An average between 13.6 and 15.7 was reported in studies carried out in Kampala	• 11,000 AIDS cases (April 1993). Acknowledged as an important emerging disease; over 40% of cases in people under the age of 30yrs. • Teenage pregnancy acknowledged as an important issue concerning schools.
Extent to which AIDS is perceived as a priority by government and by donors	• AIDS is number one health priority in Uganda. The MoH see education on HIV\AIDS as an important contribution to the prevention of this disease. • The Ministry of Education share this view. This is shown through the integration of teaching on HIV/AIDS in the school curriculum and the special teacher training programme for HIV/AIDS education. • Many donor agencies are involved in funding education on HIV/AIDS including AIDS education in schools	• Acknowledged by MoH as an important emerging disease, but not a major priority as yet. • Similar view within the education sector - that it is an issue that schools should start to address.
Agencies involved in AIDS education and the structures within which they operate	• The National AIDS Control Programme started in 1987. including IEC mass media campaigns, patient care and counselling. • In 1991 the Uganda AIDS Commission was established to co-ordinate the efforts of different sectors to cope with the impact of AIDS. • The school health education programme of the MoE has developed a special programme in collaboration with the MoH and other agencies involved in AIDS education. Main activities include AIDS education in the school curriculum, training of trainers and teachers and the development of drama competitions by schools performing plays on AIDS. • Many smaller initiatives involving school children: Examples are the Child-to-Child programmes and the Safeguard Youth From AIDS (SYFA) initiative.	• The National AIDS Control Programme was established in 1987. The medium term plan ('89-'93) included IEC, with a mass media campaign targeted at 15-30yr olds. • The plan included work in schools (mainly one-off sessions by HWs). • An external review of the NACP highlighted poor co-ordination between MoH and MoE as one of the programme constraints and recommended the development of a policy on AIDS education in schools. • This co-ordination has not yet been developed. However there is clearly a growing body of evidence to indicate both the need for this co-ordination, and the beginnings of dialogue between the sectors, which now need to be strengthened and formalised (e.g.: linkage between the GES School Health Programme, the NACP, and the MoH School Health Service).
Evidence of needs assessment related to young people on sexual health, STDs/AIDS	• No data available on STD's among young people. • Many studies pertinent to AIDS education needs of young people including KAP studies have been carried out. (See case studies for details.) • A comprehensive review of studies into issues around adolescent sexuality (Barton and Olowo Freers 1992) show marked differences between districts in number of young people who are involved in pre marital sexual experiences (Range 18 - 61.5% reporting sexual activity) and age of first experience.(13.6 - 15.7, with some as early as 10 years of age) The KAP studies show a high level of knowledge about HIV transmission. In one study 49% of the sexually active girls and 22% of the boys reported forced sexual intercourse.	• Range of studies available on teenage pregnancy, teenage sexuality, AIDS awareness and education for out of school youth, KAP studies on AIDS awareness. (See case studies for details).

	PAKISTAN	INDIA
METHODS AND MATERIALS		
HIV/AIDS education in the school curriculum	Brief mention in secondary school science text.	• Some mentioning of AIDS in reproductive health teaching in secondary schools.
Extra-curricular work related to sexual health	None apparent	• None apparent.
Special materials available for HIV/AIDS education	• Set of posters from National AIDS Control Programme, focusing on non-sexual forms of transmission of HIV.	• Wide variety of posters. • Newspaper and television coverage by journalists. • HEAL India and Red Cross are developing information materials. • Materials which explicitly refer to sexual activity are not easily accepted.
TEACHER PREPARATION		
Teacher preparation for AIDS education	None	• Some plans to start training teachers in selected schools in how to teach about AIDS. None implemented yet.

	UGANDA	GHANA
METHODS AND MATERIALS		
HIV/AIDS education in the school curriculum	• Teaching on HIV\AIDS is well integrated in the school curricula and evidence that this is actually taught is everywhere. • Education on HIV/AIDS is integrated in grade 6 and 7 of primary schools as part of the teaching on STD's. In secondary schools it forms part of the teaching on common diseases in the biology curriculum.	• Limited mention of HIV/AIDS in the JSS Lifeskills textbook 3. Addresses basic information only - not skills for sexual health, or attitudinal work concerning care of people with AIDS. • Evidence of one-off "AIDS information" sessions run by health workers (along with other sessions on STDs and teenage pregnancy) - mainly directed at senior secondary level, though some at JSS level.
Extra-curricular work related to sexual health	There is a wide range of innovative activities initiated. In particular: • Health workers and specially trained counsellors visit schools on request • SHEP produces a magazine which encourages kids to talk about health issues including AIDS • Drama activities are initiated countrywide by SHEP • Essay competitions were organised • Clubs are being established by a variety of organisations such as SYFA, TASO.	• Small scale examples of work with street youth, and of AIDS awareness dramas.
Special materials available for HIV/AIDS education	• A wide variety of posters, leaflets and other IEC materials are available. • Special AIDS kits for primary schools have been developed to help the teachers teach HIV/AIDS. • There is an AIDS pack available for secondary schools.	• Wide variety of posters, TV, radio input from NACP. • Save the Children Fund: Snakes and ladders game • Kumasi Health Education Unit: Sorting cards; flash cards
TEACHER PREPARATION		
Teacher preparation for AIDS education	• How to teach about AIDS is included in the special training of teachers through the SHEP.(1 day out of 10) • MoH trains health educators who become facilitators in the SHEP training programme for 5 days. • Secondary school teachers were given a crash course. • AIDS education is being integrated as a special subject area in teacher training colleges and 50 tutors of teacher training colleges were trained.	• None to date - but acknowledge as something which should be addressed.

	PAKISTAN	INDIA
Summary of data from young people, showing issues raised by 20%+ of the sample.	N=625 • 2 young people in the sample referred to AIDS as something which makes them unhappy/unhealthy • Questionnaire to 38 young people indicated that the majority had heard of AIDS. However, very few could describe anything about the disease. Only 3 said it is sexually transmitted, four that it is passed through male/male or male/female contact. 5 thought it was transmitted through urine/ stools. Note: The draw and write exercise about AIDS was not attempted due to official discouragement of direct discussion about AIDS with pupils. The local researcher made some attempt to gather information about children's knowledge of AIDS through a structured questionnaire administered to a limited number of older respondents who had already expressed an awareness of AIDS.	N=1314 • 7 in the sample referred to AIDs when writing about what makes them unhappy and unhealthy. Question: Draw and write about what you have heard about AIDS. Responses: 11% do not know anything about AIDS 38% see AIDS as dreadful killer disease 28% think AIDS is spread though air, water, touch, spit, urine, vomit and dirt. 27% emphasise the need to ensure that doctors use clean\new needles. 26% refer to AIDS being sexually transmitted

	UGANDA	GHANA
Summary of data from young people showing issues raised by 20% of the sample	N=695 • 194 (28%) refer to AIDS as something that makes them unhappy\unhealthy (before they knew they were to write about AIDS) • Secondary school children were much more likely to mention AIDS (40%) than primary school children (8%) Question: How can you protect yourself from AIDS? Response: 60% using condoms for protection 56% ensuring good medical practice 46% checking blood and having HIV test before sex or marriage 34% abstaining;one faithful partner; avoiding casual sex, adultery, promiscuity 25% Avoiding people with AIDS(PWA): majority means avoiding sex with PWA; 15(2%) suggests segregating certain groups e.g.. prostitutes, people with AIDS; only 22 (3% of total) suggest avoiding close contact, i.e.. sharing food, standing close to people with AIDS NOTE: a very small number mention misconceptions, eg.11 suggest that you can protect yourself through diaphragm, pill, coil and tampon.	n= 478 • 8 (1.7%) refer to AIDS as something which makes them unhappy/unhealthy (before they knew they were to write about AIDS) Question: What do you know about AIDS? Draw write, especially anything you know about how to protect yourself from AIDS. Response: 77% AIDS transmitted sexually/ prevented by limiting sexual partners/avoid casual sex/stick to your partner. 50% Using condoms prevents AIDS 36% Ensure sterile techniques are used in hospitals/AIDS spread through use of contaminated needles 32% Avoid sharp things (razors/tooth brushes)/AIDS spread by open wounds and cuts 31% Misconceptions (mainly focused on transmission of HIV either through poor hygiene (not washing enough, living in a dirty environment) or through casual contact with people with AIDS (hand shakes, kissing))

	PAKISTAN	INDIA
Evidence of evaluation work on AIDS education	None	Nothing to evaluate yet. Formative studies just started.
Teacher and parent support for developments in AIDS education	• 35/52 teachers interviewed said they had heard of AIDS, but felt their knowledge was very limited. • 24/49 parents had heard of AIDS (with clear split between literate professionals and others). • Neither group felt AIDS to be an issue. Teachers felt they have neither the knowledge nor the skills to teach about it.	• There seems to be a general agreement between teachers and parents that AIDS should be taught in schools. • Concern is expressed that it should start at the appropriate level, e.g. class 10 (13-15 yrs) and in accordance with cultural and moral values held in public in Kerala. • Teaching about condoms was seen as problematic. Students themselves had many questions mainly about the spread and origin of the disease, diagnosis and symptoms, possibilities for cure, transmission route and prevention.
Promising options for development	• Unlikely that AIDS education in schools would be able to go beyond the provision of basic information. Even here, clear resistance to any mention of sexual transmission. • Some possibility to NGOs concerned with youth developing innovative programmes (eg:All Pakistan Youth Federation).	• There is a need to address HIV\AIDS with school children and teachers urgently, considering the widespread misconceptions which are held. • Develop teacher training in how to teach about AIDS. • Start developing a programme with help of NGO's such as UNICEF and HEAL India. • Intensify formative qualitative research programme to develop appropriate materials and programmes.

	UGANDA	GHANA
Evidence of evaluation work on AIDS education	- The many KAP studies carried out , some specifically with school children, show a general high awareness of HIV\AIDS with some misconceptions. Preliminary results of the drama competition evaluation showed for example that many pupils think HIV/AIDS is only transmitted by women and also that a person who is happy and fat cannot get AIDS. - Most programmes are evaluated and recommendations are acted upon. - A general outcome is that knowledge levels are high but evidence for change in sexual practices is not there.	- Evaluations carried out of the NACP mass media campaigns show a general basic awareness of AIDS, but confirm that there are still misconceptions (e.g.: feeling that people are not convinced that they are vulnerable; belief by some that AIDS is curable). - Local study (Kumasi) of family life education in JSS schools indicated that whilst the curriculum is there, there is resistance to implementing it from teachers and parents, plus major resource constraints in schools.
Teacher and parent support for developments in AIDS education	- Knowledge about HIV/AIDS is well established. More emphasis needs to be placed on life skill teaching, e.g.. How to negotiate sexual relationships, how to say no etc. Teachers agree with the need for this kind of teaching although some are cautious about teaching how to use condoms. - Young people agree but still have many questions. Main questions for boys are: How to use condoms properly; advantages and disadvantages of blood testing; AIDS symptoms; Education on dangerous cultural practices; alternative behaviour to sex; how to know blood is safe. - Main questions for girls are: suffering at home under stepmothers; rape by drunken parents; how to prevent pregnancy; how to prevent men from disturbing them; effect of contraceptive pills on fertility. - Agreement between teachers about the need to teach same gender classes by teacher of the same gender. - No resistance from parents is expected as long as teaching about sex is not too explicit.	- Agreed by both teachers and parents that AIDS should be addressed through schools - with age 12yrs being seen as the time to start teaching "in detail". - Teachers accept that sexual aspects of AIDS must be addressed - but feel they need help on this (and prefer to involve health workers) - Parents express full diversity of views, from some happy for their children to be given explicit and practical detail on (for example) condom usage, through to others who feel that information on how to prevent sexual transmission of HIV should not be addressed until late on in senior secondary school - believing that mentioning this earlier will lead to experimentation by young people.
Promising options for development	- Strengthen and consolidate existing programmes rather than developing new initiatives. - Train more female teachers so that the teaching of HIV/AIDS in same gender groups becomes more feasible. - Train and designate female and male teachers in schools to take a counselling role for girls and boys who are put under pressure or face sexual abuse. - Follow the example of the model school and establish public rules for code of conduct of teachers and pupils. - Support Child-to-Child, SYFA and other NGO's to strengthen and expand extra curricular activities to help pupils to put into practice what they have learned and discuss difficulties they face in protecting themselves. These programmes need to include comprehensive sex education.	- There is a need to address a current over emphasis in AIDS education of transmission of HIV through blood (eg:open cuts, shared razors at barbers etc.), and to re-focus on sexual transmission. (This may be an NACP mass media issue.) - Also a need to highlight individual susceptibility to HIV (currently seen as something effecting "other" - not "me"). - General support for AIDS education from teachers and parents needs to be capitalised on, through in-service training of teachers. - It may be worth exploring developing the guidance and counselling service in schools, to address a wider range of personal issues, rather than only school subject choice. - As with health education generally, current work (eg:existing textbooks and syllabus) to be supported further, rather than trying to develop new ideas from scratch.

CASE STUDY 1: PAKISTAN

The Pakistan study was conducted in January 1993 in collaboration with the College of Community Medicine. The study focuses on Lahore in the Punjab. However, some more general information was also collected.

1.1 General Context

Health and Education

Pakistan's population is moving rapidly towards 124.8 million, with an annual growth rate of 2.84. Of the four countries in the study, it has the lowest adult literacy rates for both men and women (with 15 million illiterate adults) and, apart from India, the highest student:teacher ratio in schools. Only 50% of children enrol in school and 25% have dropped out by class 2 - resulting in around 75% of children failing to receive basic schooling. Nonetheless, given the population size of 5-17 year old children, this still gives a large school population. Given the poor uptake of education, current donor focus is on primary education, and on improving female access to and uptake of education. There are at least ten major donors involved in primary educational development.

As with the other four countries government expenditure on education exceeds that of health - but is still only set at around 2% of government expenditure.

The country as a whole has a high under 5 mortality rate (134/1000). Health priorities for young people are seen to be URTI and diarrhoea. Typhoid, nutritional problems and infectious diseases are also a priority[2]. Data on STDs is not available, and neither is information on teenage pregnancy - both of which can be used as important indicators of sexual activity, especially amongst young people.

AIDS awareness and education

Information on AIDS is hard to find. One informant described Pakistan as still being in the "denial stage" as far as acknowledgement of AIDS is concerned. This view was endorsed in discussions with a wide range of people, and evident from statistics - which showed only 24 reported cases in 1992. Of these, around 48% were described as "foreigners". Those who expressed concern about AIDS mainly referred to the problem of infection from migrant workers and from imported contaminated blood products. A few people expressed the fear that Pakistan is unlikely to escape the pandemic that is "ballooning" elsewhere and that this is a problem waiting to happen.

There is evidence that AIDS is on the agenda in both Government plans and the activities of international organisations and NGOs - but has a low profile. In terms of actual implementation, the main Government activities to date have been concentrated on conferences with medical specialists and religious leaders, establishing an AIDS surveillance system, developing plans of action, and some materials production - 4 posters and some handbills have been printed (though none was seen by the researcher on public display anywhere).

Health and AIDS education: a clean slate?

Health education within Pakistan generally is undeveloped - and is virtually non-existent within the public education sector. In the Ministry of Health it comes under the heading of Information, Education and Communication (IEC) - most often taking the form of mass media campaigns (e.g.: in support of diarrhoeal disease control programmes and immunisation campaigns). Available plans for development give no indication of emergent policy in this area, nor any reference to more systematic work with schools. The main focus is on developing personnel and undertaking basic research. There is no mention in the health education plans for 1993-1999 on anything to do with AIDS or sexual health.

Quite who might take a catalytic initiative from the government side is unclear. School health services are minimal. The National AIDS control programme has yet to move forward on IEC. UNICEF does express interest in school health and health education - and notable successes in public health education stem from UNICEF supported work around immunisation and ORS. However, for sustainability, the initiative really needs to come from within.

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[2] Personal communication with Professor Naeem Ul Hameed, Principal, College of Community Medicine, Lahore.

There are a wide variety of non-government groups concerned with health and education and health education, with a focus on young people - but these again have difficulty in providing an adequate nucleus for nation-wide or even province-wide development.

As a consequence of the lack of any clear mandate or guidance from central or provincial level, what activity there is appears fragmented, and under-developed. Another limitation expressed by curriculum developers was that changes to the school curriculum tend to be slow and lengthy.

Health education needs assessment for curriculum development

There is no evidence of systematic work by or for government to explore children's health needs, the current health situation in schools, or teaching content, methods or resources relevant to health. The only relevant material found during this study was some UNICEF reports[3] on health education within the Primary Education Curriculum Reform project in North West Frontier Province - which noted the poor health environment of schools, and advocated the development of integrated health education work across the curriculum. This work highlighted diarrhoeal disease, iodine deficiency disorders, eye problems, hearing disability and malaria as health issues most relevant to school children.

1.2 Health and AIDS education: curriculum activities

Curriculum content

"Health Education" content is not a specific subject in the school curriculum of either private or state schools. In theory there is a subject in the primary schools called "Physical and Health Education" and health information forms part of the science curriculum in high schools. In secondary schools, the science curriculum includes some health education. Even though there is some timetable space for teaching about health, this is very limited. The majority of teaching is theoretical. Introduction of more practical teaching methods is seen to be impractical - teachers are low paid, relatively low status, and have little support.

Table 4 gives brief details of the primary health education syllabus[4].

Table 4: Primary Health Education syllabus

	Personal Hygiene
Class I	Elimination habits Food and nutrition
Class II	Environmental sanitation
Class III	Accident prevention Communicable diseases - control of
Class IV	Growth and Health
Class V	Human physiology

There is apparently brief mention of AIDS in a secondary science textbook - but it was not possible to get a copy of this.

Evidence from teachers, parents and pupils suggests that even this minimum input is often missing. Around half the teachers interviewed echoed the sentiment expressed by this teacher:

> *"No health education is given in this school as a subject because we have no teachers, no tendency to learn about health, no syllabus."*

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[3] UNICEF Reports by Juliette von Siebold (1990) & Nicola Harford (December 1990).

[4] Extract from Draft Curriculum of Health and Physical Education in Pakistan for Classes 1 - V. National Bureau of curriculum and textbooks, Ministry of Education and Provincial Coordination. Most schools are likely to have one copy of this which is used as a reference.

Parents are equally ambivalent - with half saying that either health is not taught, or they have no idea whether it is taught or not. Clearly health is by no means high on the agenda in schools, although there may be specific schools where it is given some attention.

Of the teachers who said that health education was taught in their schools, most reported physical exercise and hygiene/cleanliness as the most common aspects covered. Hygiene and cleanliness education is reported usually in conjunction with inspections:

> *"We also check the bodies of children; they should be clean, socks, shoes, ears, eyes, hair."*

In some cases it appeared as if this emphasis on cleanliness had negative effects leading some teachers to conclude that such "health education" should not be stressed because :

> *"if we stress health education too much, the children don't come back to school. They are told to wear proper shoes and a sweater in the winter. The parents don't take care. Fear and financial problems. If we are strict with health it increases the drop out rate. We discuss when the child is not wearing a proper dress. They say we will go to the city and buy medicines. Parents say they do not have the time."*

A few teachers mention including food and nutrition education. This is centred mostly around the need to warn children of the dangers of buying food from street hawkers.

> *"We ask people to take proper food. When hawkers come we ask them to go away." (Focus Group Discussion)*

There is minimal reference to disease prevention or health promotion, and a prevailing view that "health" education should actually be "medical services".

Teachers seemed reluctant to deal with sexuality or AIDS at all, believing that this sort of teaching should come from doctors.

Teacher preparation

There are a range of public and private teacher training institutes in Lahore. Notable in the public sector are three Teacher Training Colleges for men, The Government Education College for Girls, a college for science teachers, a specialist Health and Physical Education college and a pre-service training institution. The Education Department of some Teacher Training Colleges also conduct refresher courses. However, the emphasis in training seems to be more on physical education and very little, if any on health awareness. Some anecdotal confirmation of this came from talking to primary school teachers who had left college 3 - 6 years before - none could remember having been taught anything about health. Another secondary school teacher who had graduated in physical education considered the physical education activities to be synonymous with health education.

Supportive Environment

School health services

Many government officials, head teachers, class teachers and health personnel, when asked about health education in the schools, associated this with a school health service. There is a schools health programme, with over 1,000 doctors employed to visit schools for a few hours a day. How operational this programme is was unclear - the general view was that whilst school health services was once seen as a priority, it is no longer so, and in most schools is not evident. Nevertheless the conceptual link between health education and medical services seemed to be widespread.

School health environment

UNICEF has started to look at the question of the health environment of primary schools[5] -though this work has not been undertaken in the Punjab. The general findings indicated low levels of hygiene - with toilets in only 4% of schools, lack of adequate clean water, and no attention to food provision.

A second report[6] noted that water in the schools is collected in large concrete tubs in the school grounds and is used for washing hands, cleaning takkiboards and drinking. The sanitary conditions are hazardous. Girls and teachers are not at liberty to leave the school compound and go to the fields so an area behind the classroom has been delegated for this purpose. There is no provision for cleaning. There is insufficient lighting and ventilation. While some of the public sector schools visited as part of the study in the Lahore area had excellent and well maintained facilities, these seemed to be generally described as the exceptions rather than the norm.

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[5] Report on Health Education within the Primary education Curriculum reform project, NWFP Teacher training activities, Nicola Harford, December 1990.

There is some evidence that innovation is possible at the local level, especially in private schools, but also in state schools. At the most basic level, health workers may be invited in to talk about a particular health topic. One school visited had a health club. Another noted that in the past she had invited a lady doctor to lecture to the girls and speak to them individually. She felt this was important and useful - especially to talk to the girls about their menstrual periods. However, these events are likely to be the exception rather than the rule, and rely on individual interest and motivation.

School-community relationships

There was little evidence of active involvement of parents in school matters. This was confirmed through the difficulty of organising parent discussion groups. The few informants who mentioned parents suggested they were more likely to act as a constraint to innovation, rather than as support for it.

1.3 The concerns of young people

1.3.1 General Health Concerns

Table 5: Children's health concerns: Pakistan (Lahore)

issue	**frequency**	**percentage (total n=625)**
dirty surroundings	232	37.1%
flies	214	34.2%
mosquitoes	198	31.7%
traffic	130	20.8%
rotten food	114	18.2%
dirty food	97	15.5%
rubbish	84	13.4%
smoking	73	11.7%
industry	69	11%

The strongest message coming from the young peoples' drawings and writing is a concern about dirt - dirty surroundings, dirty people, dirty food, dirty air, dirty water. Associated with these are vectors (mainly flies and mosquitoes). These concerns are simply, but quite graphically drawn and described by the children - from across the age groups, and with minimal differences between boys and girls. Selected examples provided in the following pages illustrate the strength with which some of these concerns are expressed.

Dirty surroundings

> *Filth and stench things make us ill. We become unhappy due to filth and illness*
>
> *I think children are very sensitive. They think about their surroundings*

Positive images of health and happiness also emphasise the importance of beautiful surroundings - parks, flowers, trees etc.

Dirty people

> *A human being himself is responsible for his sickness. If we take dirty things we will fall ill. If we don't keep our teeth clean a bad odour would come from our mouths and we will fall ill. Nails and body cleanliness is essential. If we take food with dirty hands we will fall ill. By dirty atmosphere and lack of cleanliness in our homes could lead to sickness.*

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[6] Report on Health Education within the Primary Education curriculum Reform Project. NWFP. School Curriculum Activities. Juliette von Seibold 1990 - UNICEF REPORT.

Dirty water

> *Standing dirty water in front of house which gives rise to mosquitoes*

Dirty food

> *By eating dirty things the germs enter into our body which make us ill*

Some students also show a little understanding about the relationship between diet and health, and the need for a balanced diet, and also the relationship between sweets and tooth decay. The visual images often include sweets and chocolate. On the issue of diet a sex difference is apparent, with girls being rather more likely to talk about dietary issues than boys.

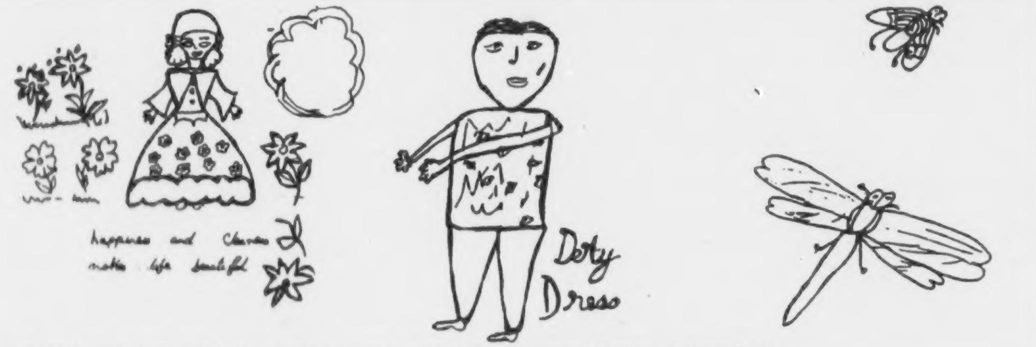

Figure 3 Things that make children "unhappy and unhealthy" - things related to dirt (Pakistan)

Dirty air

> *I think that the first thing that makes us sick is "POLLUTION"...Good food and good dress is not so necessary for us as good air because we inhale in air. Our lives depends on fresh air*
>
> *The bad environment, sounds of vehicles make us unhappy and sick..... Pollution also makes us ill and weak. The smoke which comes out of the cars makes us sick. It is very harmful to our lungs*

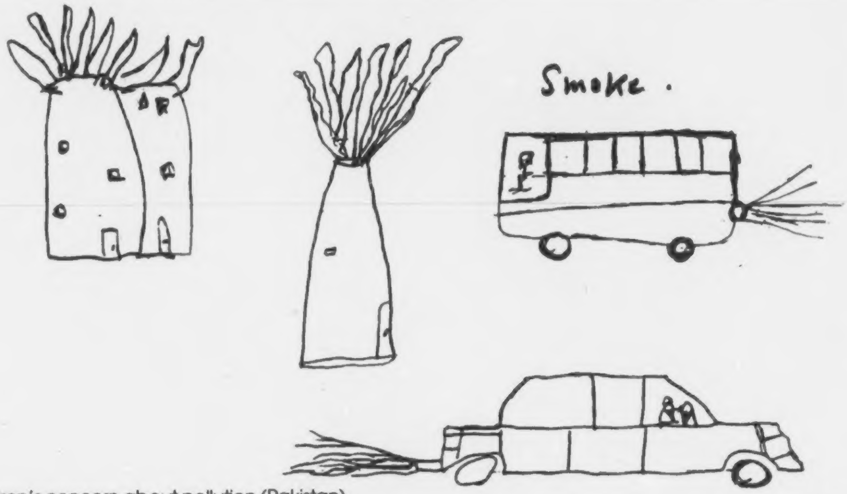

Figure 4 Children's concern about pollution (Pakistan)

Problems with parents and personal relationships

Concerns to do with personal relationships do feature, but to a quite limited degree. Girls are more likely to express concerns about problems with parents (10% of girls vs. 3% of boys). Older children are more likely to express these problems than younger ones (under 14 years : 5%, 14 years+ : 10%,). These worries are articulated as: "discouragement of the child"; "Parents harsh behaviour"; "rebuke from parents and teachers"; the "environments of the house", particularly quarrels and lack of co-operation in the home which can lead to people becoming "unhappy and unhealthy"; "burden of studies" and "differences with friends"

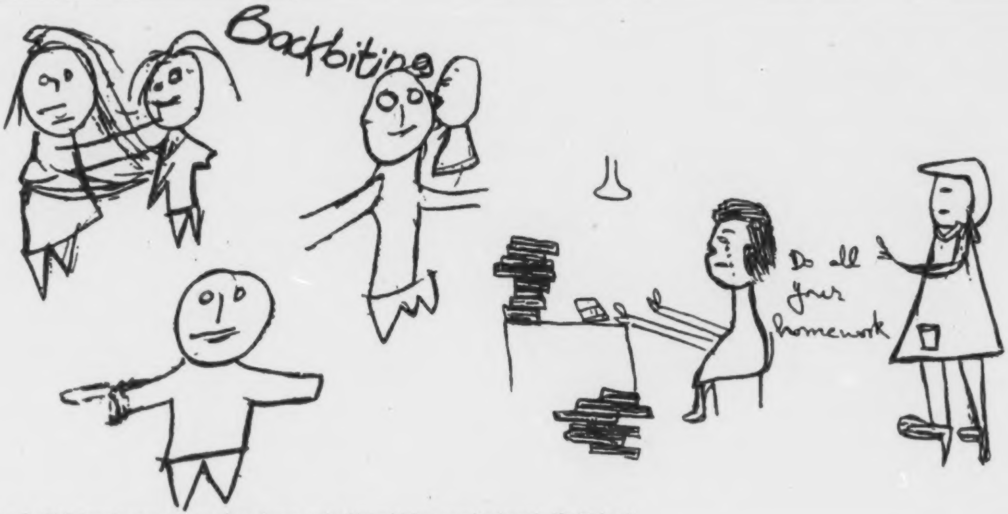

Figure 5 Children's concerns about parents, friendships and schools (Pakistan)

1.3.2 Children's understanding of HIV/AIDS

Out of the total sample of children, only one referred to sex and one to AIDS (both were girls) :

> *[people who] don't wash their hands before eating and they don't enjoy sex with those who are neat and clean and after sexual intercourse they don't take bath which is not a good thing" (girl)*
>
> *Due to diseases like AIDS, measles and whooping cough we remain unhappy (girl)*

Thirty eight students also completed an open ended questionnaire on the subject of AIDS. Of these, the majority said they had heard of the disease - saying that it is a dangerous disease, is infectious and is spread by a virus or germ.

Out of the 38, only three mentioned that it is sexually transmitted, and four others that it is passed from man to man or by male-female contact. Five thought it is transmitted through urine/stools. Four described the main symptom as being having an enlarged belly.

From this extremely limited evidence it is none the less evident that some information is reaching these Lahore school children about AIDS. One teacher mentioned that it is in the general science curriculum for ages 15-16 - where they are simply told that it is caused by a virus. Three pupils confirmed that AIDS does get a mention in a school text book, others said they had heard about it from the newspapers and TV.

Out of a total of 52 teachers interviewed, only 35 said they had heard about AIDS, and even then commented :

> *"Even teachers have heard little about AIDS. They don't know much about it."*

Parents also showed little evidence of knowing about AIDS. When asked to mention names of serious diseases, TB was mentioned most often, followed by diarrhoea. Neither AIDS nor any other STD was referred to. Whilst approximately half of a sample of 49 said they had heard of AIDS, there was a clear split in terms of education - with literate professionals saying they had heard of the disease and illiterate non-professionals saying they had not.

1.4 Opportunities for development

Research and evaluation

Given the above, it is not surprising that we were unable to find any studies - either baseline work or formative or summative evaluations related to school health education. One curriculum evaluation was mentioned, concerning the health and physical education curriculum, which again confirmed the lack of sanitation facilities in schools.

Clearly more research is needed both to explore children's perceptions of AIDS and to understand the strong opposition to sex education from various levels. From the experience of this research we recommend that future researchers attempting work in this field should expect to devote time to official negotiation in gaining access.

Views of teachers and parents on how health and AIDS education should develop

When teachers were asked what they felt children should be taught about health, the main response was that "they should know about health generally" i.e.: they should know about pollution, about balanced diet, about living "neat and clean" and about the advantages of exercise. Only one teacher mentioned that they should be taught about sex, also commenting that this must be "according to our religion". When asked directly if children should be taught about AIDS, teachers tended to speak in euphemistic terms such as "it can be taught but you must not give strong details" "AIDS can be introduced but with limits".

Parents reflected these views. 19 of the 49 said children should be taught about cleanliness. Again, the importance of maintaining the religious context of any teaching on health was mentioned.

Constraints to further developments in health teaching were seen to be related to lack of syllabus, lack of trained staff, lack of teaching resources, and lack of time available to take on a "new" area of teaching. Some teachers acknowledged that even the current physical and health education syllabus does not get properly covered, but is squeezed out to make time for "more important" subjects.

Teachers did not have much to say about teaching related to AIDS. Those who did comment expressed their own lack of knowledge, and therefore of the necessity to provide specialist support :

> *"I have very little knowledge and little knowledge is dangerous. So we must be provided some specialists if you want that we may get sound knowledge about AIDS and what measures we take for its prevention."*

Teachers feel that parents do not present a major constraint to developing new teaching ideas. Several teachers felt that parents basically are not interested : "In this area parents are not interested in education. They are interested in certification" Others felt that parents will be happy with whatever the schools provide.

Of the parents, those from professional backgrounds (who were the ones who said they actually had heard of AIDS) raised no objections to having it taught in school - and some even suggested it could be mentioned in primary school. In the group discussion with women from an adult literacy class, one woman expressed the following view :

> *We should tell unmarried girls also. Because there are some girls who have sexual relations before they are married. So they should also inform the unmarried girls because there are some "Naughty girls amongst them"* (translation)

Pupil's health concerns

Much of the "draw and write" data gives a strong message from the young people of Lahore of concern about the health of the environment in which they live. It presents a strong case for improvements in sanitation, garbage disposal and tackling pollution issues - all of which go far beyond the bounds of individually oriented health education. Possibly the challenge for health education here is twofold :

a) how to harness these feelings of young people to encourage them to work towards collective action on such issues

b) how to also help young people recognise what they as individuals can do to protect themselves from an unhealthy environment.

CASE STUDY 2: INDIA

The India study was conducted in June 1993 in conjunction with the Institute for Management in Government in Trivandrum. The study focuses on Trivandrum, Kerala. However some more general information was also collected

2.1 General context

Health and AIDS situation in India

India has an estimated population of around 840 million (1991). From a 1981 census, 39.6% of the population are under 15 yrs.

Important diseases include malaria, URTI, measles, gastrointestinal tract infections, non-communicable diseases and accidents. Important causes of death are infectious and parasitic diseases, diseases of the circulatory system, accidents, poisoning and violence, diseases of the respiratory and digestive systems.

The first case of AIDS in India was reported in May 1986. Since then, 242 cases have been recorded. However, projections estimate a current seropositivity of 500,000 to 2.5 million, and that by the year 2,000 there may be as many as 5 million HIV positive and 1 million AIDS cases in India. Currently, Kerala (where the current study was undertaken) has detailed 17 AIDS deaths, 154 seropositive HIV cases and 26 cases of full blown AIDS[7]. Kerala is seen as being particularly vulnerable due to its large number of economic migrants.

Health education in Kerala: an overview

Health education in India is more commonly known as IEC (Information, Education and Communication), with central services in the health sector. In Kerala there is a school health unit, focused on basic health services for schools. This does not yet appear to be operational.

The general picture of health education in schools in Kerala is that people at senior levels, in both health and education, can describe what in theory should be happening. This includes a health education curriculum, and school health clubs. To date this is very much at a planning stage and does not yet appear to be high on the agendas of either the education or health departments. However, there is a small nucleus of committed individuals, supported by UNICEF and by a local NGO, HEAL[8]. There is also some evidence of co-ordination between health and education on curriculum planning, with experts from the Directorate of Health Services included in the teams which formulate syllabi and write textbooks for health education, science and technology and health science courses.

Again in theory, there is some co-ordination between health and education at district level, with committees meeting annually to talk about the school health programme. This focuses mainly on school health checks, but could potentially be used to co-ordinate health education activity.

UNICEF is clearly influencing the strengthening of health education activities and has a key role to play in furthering school health education in collaboration with the Directorate of Health Services and the Institute of Education.

Links between the AIDS control programme and education

The National AIDS Control Programme in India was established in 1987. To date, it has focused mainly on training of clinicians, establishing AIDS units for symptomatic treatment of people with AIDS and setting up HIV testing centres. The health education, or IEC, developments have been co-ordinated through the Central Health Education Bureau, with some mass media advertising (mainly posters). As yet, there are no clearly stated plans to develop AIDS education through schools, other than passing reference to the need to develop curricula. There is some interest from UNICEF to develop AIDS education more broadly, and also from two local NGOs, HEAL and the Red Cross..

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[7] Information provided by Dr Modhavar Nair 1993.

[8] HEAL : Health Education and Adult Literacy : an NGO.

Health and AIDS education needs assessment for curriculum development

There appears to be minimal data on the general health problems of school-aged children available in Kerala - and no plans for any kind of school health survey.

The Directorate of Health Services have undertaken a baseline study on HIV/AIDS - but results of this study were not available at the time of this study.

The one source of information which does provide some insight into the health education needs of young people is a small study undertaken by HEAL. This study explored what Class 10 children (10-15 year old children) know about sex. From a sample of 100 children (half boys, half girls) :

> 75 had heard about sex from magazines, films and friends.
> 15 from friends only and
> 2 had heard from parents.
> Most said they get some in biology classes but details come from somewhere else.

During the study we gathered some anecdotal evidence of sexual activity amongst young people (from around the age of 14 years). Others felt that this is the exception rather than the rule, due to cultural factors. There is a notable lack of available data on STD's.

2.2 *Health and AIDS Education: curriculum activities*

Health education curriculum and textbook content

In 1983 a curriculum for health education was implemented in all primary, middle, high and higher education schools. This was developed by the Ministry of Education in collaboration with health service staff.

Health is integrated in the science curriculum in Biology and in health education in the Health and Physical Education curriculum. A document[9] summarising health education in the biology and the health and PE syllabi notes the following:

> "Health and Physical Education are recommended as an integral part of the school curriculum. At the lower primary stage "activities to develop proper health and hygienic habits should be considered"(page vii).
>
> At the upper primary level: Under health education, activities and awareness programmes related to sanitation healthy living, safety measures, nutrition, hazards of adulteration, first aid etc. are to be organised."

In the high school curriculum topics on health and health education are included in classes 8, 9, 10. In summary subject areas in health education taught in classes 8,9 and 10(High school) are:

Integrated in the biology curriculum:

> Nutrition, food and hygiene, first aid, addictive drugs and dangers of drug use, infectious and communicable diseases including prevention and causes, use of health services, importance of exercise, consumer education and home nursing.

Population education including the reproductive system and contraceptives is an important part of the social science and life sciences curriculum. Subject areas integrated in population education:

> Population dynamics, health nutrition and population growth, reproductive system, family life and population growth

Health education is examined as part of the biology and health science exam at the end of class 10. It was decided to examine it in order that it "be taken seriously". However, a corollary of this is that anything in the syllabus which is not examined tends to be dropped or given very limited coverage.

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[9] Summary of Health and health education aspects in biology and health and physical education syllabus for high school classes, standard 8 to 10, Revised version volume II, 1992.

Health Education Practice

Teachers and parents perceptions of what is taught on health education

There was general agreement among teachers that health is taught within biology and science for standard 8-10. This includes teaching on specific diseases (e.g.: kidney problems, hypertension, heart disease, injuries, problems due to smoking, TB, cholera, dysentery, leprosy). Some teachers also mention that this includes information on disease prevention (e.g.: malaria control). One school referred to the role of chemistry teachers in dealing with topics such as pollution (water, dirt, sound). It appears that there is one session taught on reproduction.

Discussions with parents revealed a lack of awareness about what children are learning about health from school. Views ranged from "a lot" to "there doesn't seem to be anything taught". One group thought that hygiene teaching was included. Some mentioned specific diseases they think the children are taught about, such as: viral diseases, diarrhoea, typhoid, TB, measles, diphtheria, polio, vitamin deficiencies, beri beri, cold, cough, pneumonia, indigestion, malaria, filariasis, skin disease, malnutrition, and ulcers.

In group discussions pupils were asked who helps them to stay healthy. All groups mentioned teachers who teach about health in school, and several referred to textbooks which include health topics. Parents were also mentioned and a couple of groups spoke of health workers..

AIDS education

AIDS does not feature in the current curriculum. Contraception and reproductive systems are included in population education. Contraceptives are mentioned but not explained. Sex education is kept very theoretical.

> "It is not done to speak about sex in our society in school classes."

Neither students, teachers nor parents currently see school as a major source of information about HIV/AIDS - although in group discussions with students, two groups said they had been taught about it in school. Those children who mentioned education in the draw and write exercise refer mainly to newspapers, TV and radio. Student group discussions also said they had heard about AIDS from "common talk" with friends or in the community.

General Teaching methods

The observations and discussions with students and teachers suggest that most teaching is didactic despite the recommendations in the syllabus for more interactive methods. Extracts of the syllabus recommend:

Table 6 : Health education activities in schools

Suggested learning activities for food hygiene include :
Making charts, listing and demonstrating various aspects of balanced diets.
Using slides and photographs to show kwashiorkor and marasmus.
Discussion on various requirements for nutrient intake and calories.
Collecting newspaper cuttings to discuss factors responsible for deficiency of nutrients.
Arranging exhibitions about readily available food with high nutrients
Demonstrations of first aid skills.

Activities recommended in the health science curriculum are :
Discussing unhygienic practices.
Collection/preparation of pictures/charts showing ill effects of alcoholism, drug addiction and smoking.
Preparing immunisation charts showing time schedule for children.
Preparing a list of commonly occurring diseases and classifying them under hereditary, communicable and non-communicable.
Collecting details of genetic engineering Health and Physical Education.

However, this evidence must be set beside the general agreement that in health education it is "Only theoretical aspects that are taught nothing practical". In some cases, teachers invite doctors to give talks on health issues and diseases - suggesting their reluctance to tackle health issues themselves.

Teacher preparation

Health education forms part of the Health and Physical education curriculum. Marks for health education constitute 2.5% of the total curriculum marks.

It was not possible to see the curriculum for health but one informant commented that :

> "health education is not integrated in the teacher training colleges. Orientation of teachers to teach health education is done by IEC staff responsible for school health education."

and noted that over the last five years no orientation in health education has taken place as there has been no money for training.

Where teacher orientation has been done, ilt has been carried out by doctors. It comprises a 2 day training. So far 1000 teachers have been trained in 20 courses in some selected districts: Karny, Wanar, Trivandrum. The training is conducted at (Sub) District level. The teachers trained are science teachers and in-charges of health clubs in schools. The topics covered are: communicable diseases (HIV/AIDS will be integrated here), health habits, immunisation, nutrition, first aid and health problems such as seeing, hearing. This programme was started in 1991 by UNICEF.

UNICEF has started intensive health education programmes providing training to teachers and health club leaders in the primary schools in Vizhinjam Panchayat and Vihura Panchayat. HEAL has also arranged an teachers' orientation course with an emphasis on interactive methods.

There was no evidence in the teacher training colleges of any training related to AIDS education.

Supportive environments

Additional support for health and AIDS education within the school context

Health clubs are the most frequently mentioned co-curricular health education activity in schools. The health club initiative was started in 1992. It is organised by the Deputy Director of Education (a district level officer), with the curriculum put together by the Institute of Education. At school level, head teachers select one teacher representative. S/he is given a one day orientation seminar, conducted by health personnel. This teacher then establishes a school health club, starting with 50 selected students. These students organise activities and campaigns with their peers, and with the parent teacher association. Activities can include: holding exhibitions, health camps and medical check-ups. Some medicine is provided, and selected schools receive a UNICEF health kit.

There are plans to extend the activities further to incorporate HIV/AIDS teaching, but these are not yet ready for implementation.

Key informants at central level suggested that some 6,000 schools in Kerala have school health clubs, or are starting them up. However, school visits failed to provide any evidence that health clubs are yet active, and further informants, when probed, agreed that for the most part, health clubs are not yet operational, and lack necessary funding.

In addition to the Health Clubs initiative, there is some evidence of NGO activity concerned with health education, using schools as a base or entry point. There are also plans to arrange seminars for volunteers of the National Service Scheme Programme to initiate AIDS information activities in colleges.

The Population Education movement organises a range of out-of-class activities, including competitions (e.g. writing essays, painting, public speaking, quizzes on themes on popular education related issues); a "village adoption scheme" whereby selected schools adopt local villages, carry out surveys and look after the family life problems in the village. Population education clubs are also organised (i.e. different from health clubs). Population education also celebrates World Population Day using it to educate people about the population explosion and during the Population Education Week , exhibitions, processions, placards and banners carry the same message to schools.

School health services

For all schools there is supposed to be a health scheme programme. 12-16 medical officers are responsible for school health checks. Doctors are supposed to do a school health test once a year. However, the system is not fully operational - one person commented that school health checks may happen only once in three years.

2.3 The concerns of young people

2.3.1 General health concerns

Table 7: Frequency table showing the key issues which the sample say make them "unhappy/unhealthy"

Issue	frequency	% frequency (N = 1341)
Problems with parents	**530**	39.5%
fearing the death of their parents	248	
beating/abuse by parents	214	
parents not caring	121	
Problems at school	**482**	35.9%
concern over failing exams	424	
problems with teachers	89	
Food hygiene	**457**	34.1%
eating rotten	163	
eating dirty food	107	
eating food that flies have been on	169	
drinking contaminated water	171	
Diseases	**387**	28.9%
"being sick/ill"	356	
Personal worries	**348**	26%
loneliness/despair/worry	259	
Environmental hygiene	**342**	25.5%
dirty surroundings	224	
Pollution	**338**	25.2%
from traffic	108	
from industry	141	
Accidents	**253**	18.9%
road traffic accidents	98	
injuries from playing	141	

Table 7 shows the issues mentioned by the pupils in the draw and write exercise. It is of interest to note that the young people are putting concerns with family and school at the top of the list, and only then turning to more typical "health" issues. Environmental hygiene stands out much more clearly than personal hygiene (mentioned by only 13% of the sample), as does a concern about pollution. The pollution data has some similarities with findings from Lahore, Pakistan - showing the consequences for young people of living in overcrowded urban environments.

The summary statistics mask the richness of the children's responses. The following extracts from the data provide a flavour of their views.

Problems with relationships and problems at school

Coming top of the list of concerns expressed by young people in Kerala were issues related to their relationships with parents, and worries about school. As with the Pakistan data, girls are more likely to describe problems with their parents/family than are boys.

Family problems frequently refer to death in the family - of parents and of other relatives. In many cases, this was expressed as a fear, rather than something that had actually happened. The other issue raised by many young people is of being scolded or beaten by their parents, for example:

> *Sometimes my parents give me a real thrashing. I am not much worried by this. But they sometimes treat me with acute lack of love. This hurts me. I expect more from each (Pappa and Mamma) It brings me both mental and physical unrest (boy 14yr.)*

In pictures this is usually shown involving a stick. Parental discord is also sometimes depicted as a source of unhappiness for the children.

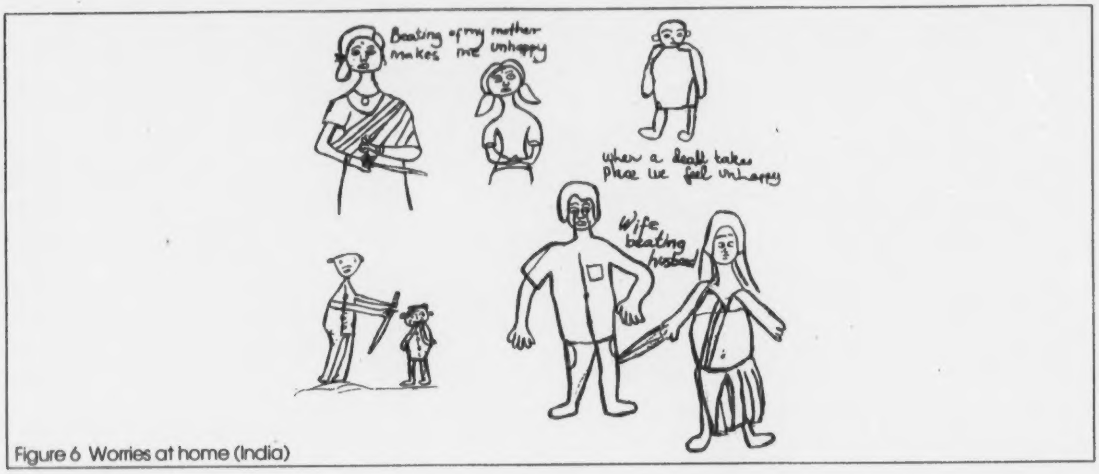
Beating of my mother makes me unhappy
when a death takes place we feel unhappy
Wife beating husband

Figure 6 Worries at home (India)

The punishment of children is often associated with not doing well at school, thus leading to a vicious circle as the following quotation illustrates:

> *If things are not happy at home I will not be able to study well and then I will get low marks. Consequently I will be punished at home and this will make me very sad. (girl 11ys)*

A number of the comments carry a sense that the children feel "wronged":

> *when the elder brother is given priority.....*
>
> *when elders do things wrong and put the responsibility over on us*
>
> *what is her crime? Stealing. She was in starvation and she has stolen because of this.*

Another expression of this sense of injustice is suggested by one child who hints at a 'lost youth':

> *At a time when I should be playing and singing and running around with friends without any control, people at home coerce me to sit down and study.". (boy 15yr.)*

The fear of failure at school appears to produce strong feelings amongst the children in this sample. They fear getting low marks and not meeting parents' expectations, one said that low examination marks are "the greatest unhappiness" and one goes so far as to say "when the result in exams is not good, I feel like killing myself" (girl 13 yrs). Memories of failure are poignant and, as the following quotation illustrates, can be recounted in detail:

> *In the morning of the day my results for class 7 was to be announced I got up, took a bath, dressed up in good trousers and shirt and went to school at 9.50 am I was very excited at that time. As soon as I reached the gate of the school I ran into the school and quickly found out that my name was not on the rank list. So all my vigour and vitality drained out of me. I can't even describe my sadness.... (boy 12yr..)*

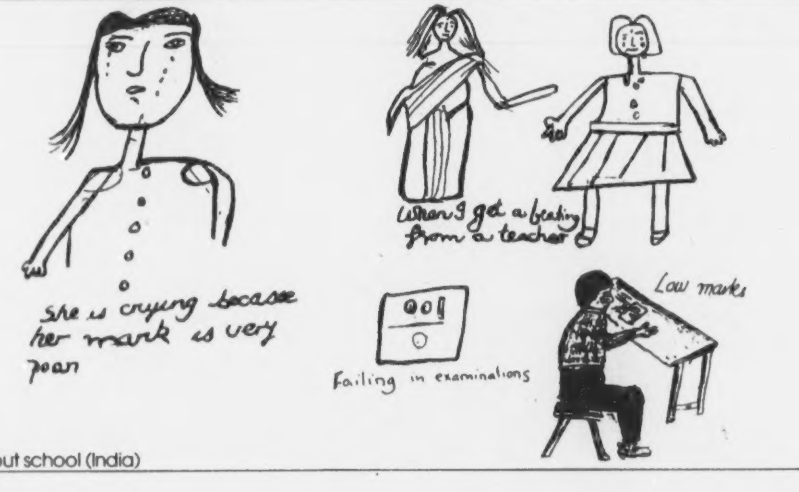
She is crying because her mark is very poor
When I get a beating from a teacher
001
0
Failing in examinations
Low marks

Figure 7 Worries about school (India)

Concerns related to 'traditional' health education topics taught in the classroom

Food and hygiene

Food hygiene ranks third in frequency with many references to the dangers of uncovered food and water and contamination by flies. Many children elaborate on how germs are spread and some mention specific diseases such as cholera and typhoid that are spread through food and water.

The data shows a clear difference between the sexes in terms of mentioning food hygiene, with girls mentioning it twice as frequently as boys. There is no difference between the two grade groups (i.e.: those have been taught about health and those who have not).

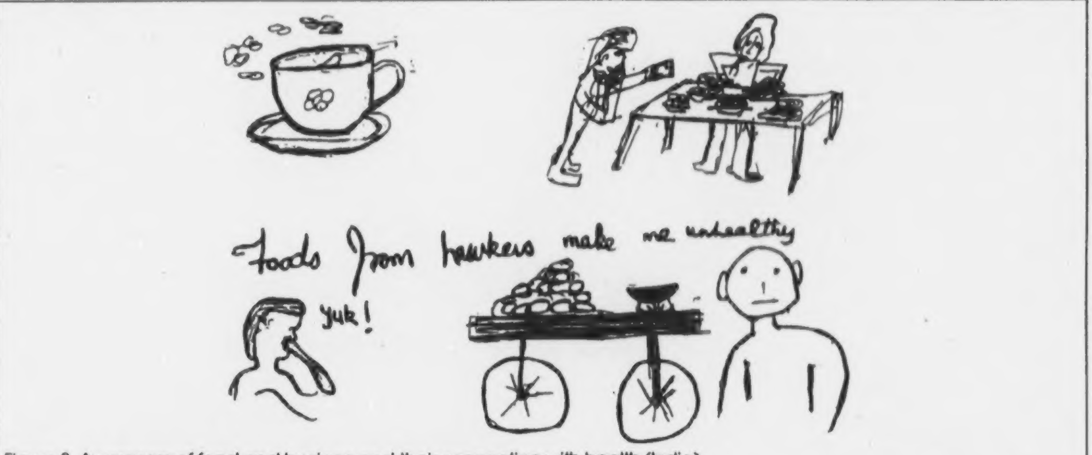
Foods from hawkers make me unhealthy
yuk!

Figure 8 Awareness of food and hygiene and their connection with health (India)

Diseases and environment

Just over a quarter of the sample lists diseases in their accounts of what makes them "unhappy/unhealthy". Many of these simply refer to being sick generally. Many also mention specific disease such as TB, malaria, diarrhoea, skin problems, coughs, kidney problems and cancer. Diseases tend to be mentioned in association either with a vector (e.g.: malaria being caused by mosquitoes) or with environmental conditions.

Seven young people (all boys) specifically mentioned AIDS in what makes them unhappy and unhealthy, including one illustration - for example :

> *If AIDS comes to this country people will fall down dead like rain. It will be like there is poison in food. (boy 11yrs H6)*

Accidents

Other issues related to what was taught and frequently mentioned is accidents - with the lower grades referring to accidents more frequently than higher grades. (24% of grades 6-7 vs. 16% of grades 8-10). The majority refer to road traffic accidents - with several involving bicycles.

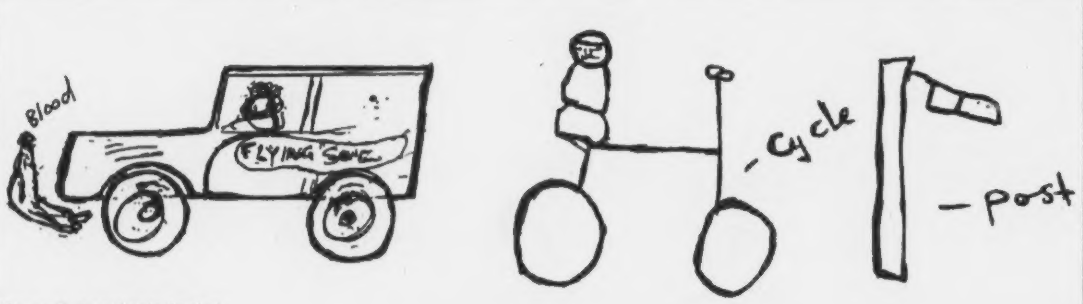

Figure 9 Accidents (India)

Drugs and alcohol

One issue which does not show up strongly in numerical terms, but does get quite strong and detailed comment by those who raise it is the issue of drugs -especially smoking. They worry about the cost,- and they worry about the effects of passive smoking. The effect of alcohol is also noted by some of the children: ... *"when someone gets drunk and smiles in a mocking way we feel sad.....drinking can make a person mad" Boys were substantially more likely to talk about drugs than girls (32% vs. 14%).*

Environmental health

This sample expressed considerable concern, both about local environmental conditions and about the broader problems of pollution from vehicles and from industry. Many of these were accompanied by graphic illustrations, and several included lengthy texts, indicating very strong feelings on these issues. There were clear differences between the two grade groupings, with around 30% of the older children referring to one or both of these issues, as compared with around 15% of the younger group. The girls in the sample were particularly keen to highlight the problems created by pollution with 32% of girls vs. 18% of boys focusing on pollution in their texts and drawings.

The following quotation gives a feel for the strength of opinion on these issues :

> *The smoke which comes out of the factory and the waste water of them are washed into the lakes. This water is used by the people who are poor. Today the people live only up to the age of 50yrs with healthy living but the people of the olden times without using science lived up to ages of 80 with complete health.*

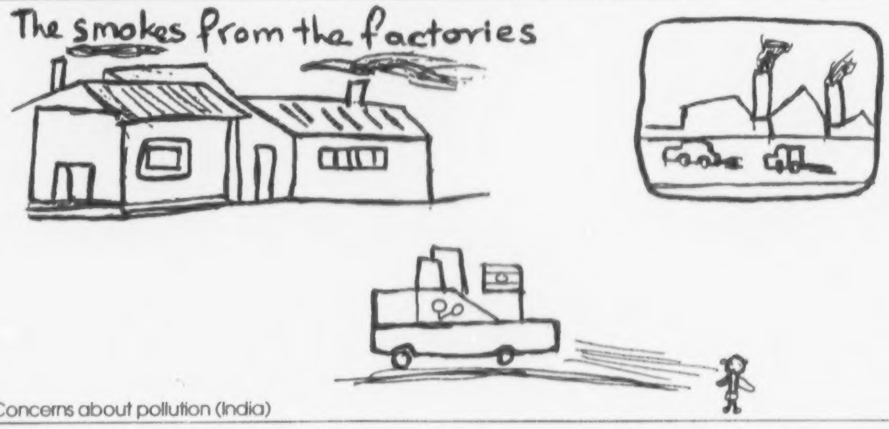
The smokes from the factories

Figure 10 Concerns about pollution (India)

Summary of difference between gender and ages

Anticipated sex differences did show up on food-related issues, with girls mentioning both food hygiene and diet, and problems with relationships (especially with parents) more often than boys, and exercise and drugs rather less frequently than boys.

Some of the data gives support to the evidence from teachers that health is taught to older children, with the grade 8-10 group discussing diseases, environmental health and the effects of pollution much more frequently than their younger school mates. This grade difference is not apparent for problems at school or with relationships with friends.

Very few of this sample expand their view of "unhappy/unhealthy" to include the broader social and political context in which they live (such as poverty, war, social unrest etc.).

It is not possible to detect any evidence in this material of extracurricular health activities (i.e.: the health clubs which are supposed to be starting up).

2.3.2 Children's understanding of AIDS/HIV

Table 8: Frequency table showing what children say they have heard about aids

issue	**frequency**	**% frequency (N = 1314)**
AIDS is a dreadful disease/ killing many people/ epidemic/ spreading fast	510	38%
AIDS is spread by contact with people (i.e.: through air, spit, urine, being close) and through dirt generally	381	28.4%
To avoid AIDS, ensure that doctors use new/sterile needles in hospital	367	27.4%
Reference to AIDS being sexually transmitted	350	26.1%
Do not know anything about AIDS/ sheet left blank	144	10.7%

Despite lack of systematic AIDS education in schools, or a particularly active AIDS awareness campaign, many children have heard something about AIDS - with only 10.7% responding that they know nothing, or simply leaving their paper blank. There are others who are able to give quite detailed information on AIDS, showing an awareness of the three main ways it is spread, how it affects the immune system, the fact that a person may be a carrier without showing symptoms of the disease for many years and the extent of the global crises.

> *The people of the world should cooperate to prevent this disease. (boy 13yrs H9)*

The "don't knows" are more likely to be boys (13% of boys and 7% of girls were unable to respond to the AIDS question), and more likely to be in grades 6 and 7 (17% of grades 6&7 unable to respond vs. 6% of grades 8-10).

Misconceptions about AIDS

Over a quarter have misconceived ideas about AIDS being spread through daily contact with people, through the air, through food and through dirty environment. This view is significantly more prevalent amongst girls than boys (34% vs. 24%) and amongst grade 8-10 pupils than amongst grade 6/7 children (35% vs. 21%). Misconceptions about transmission and prevention of infection include:

> *... through the clothes, the food, water etc. (girl 13yrs)*
>
> *When a person gets this disease we should not go near the person. We should not eat the left overs of this patient. Either we should dig a hole and put left over in this hole and cover it up or burning the stuff is the best thing to do. Do not mix clothes of this patient with clothes of another patient (girl 12yrs H8)*
>
> *..When he coughs he should close his mouth otherwise the disease will spread to other people. .. (girl 13yrs H8)*

Some misconceived ideas of causation include:

- *vomiting of the aids patient.*
- *smoking and taking liquor.*
- *the Aides mosquito.*
- *those who stand near the Aides affected people is to get the disease*
- *inhaling the smoke of vehicles and trains.*
- *it occurs where there is some kind of fusion between the male and female gamete.*

Some misconceived ideas about cure include:

- *eating jackfruit is a good treatment for aids...*
- *AIDS is a deadly disease but treatment has been developed for it.*
- *only if you take the patients to the hospital can they be cured of this disease*
- *recently we heard on TV and read in the newspapers that Indian systems of medicine has some treatment for it.This hopefully will end in the goodness of this country*
- *it can be cured by radiation.*

On the other hand, there are children who are already quite clear that AIDS is NOT caused by close proximity with people, dirt etc.

Transmission through sharp objects

27.4% of the sample know about the dangers of unsterile needles, often also tying this up with dangers of blood transfusions.

There are a few stories about AIDS being passed on through unfortunate coincidences (i.e.: a person with AIDS being shaved by a barber, and getting a cut, and then someone else coming along and having the infection passed on). These are quite infrequent (compared, for example, with Ghana, where this is a common concept). In most cases, the infected person is seen to be a "foreigner" - with Europe, the USA and Africa being seen as the places AIDS comes from.

Transmission through sexual contact

Around a quarter of the sample know that AIDS is sexually transmitted, or at least transmitted through man/woman relationships. Several of these don't directly refer to sex, but talk of "mingling", "bad connections with women", "private contact of one person with another" - the majority including a connotation that it is only "bad women" (and rather less often "bad men") who are at risk. Pregnant women are seen to be particularly at risk.

Children's ideas about who is at risk:

- *mostly people who are in hotels*
- *adultery is its main cause and it is very common in Western countries*
- *AIDS is caused when someone relates to prostitutes.*
- *relation with bad women.*
- *in some places like Bombay there are many girls selling their body for money. They are illiterate.*

Children's ideas on how you can protect yourself:

- *Not doing sex*
- *Don't have sex with dirty men. Don't have sex with dirty women. When having sex with such persons, don't allow sperm and ovum to get in contact*
- *Monogamy should be made compulsory to avoid aids.*

Even though a number of these young people have some awareness of sexual transmission, very few talk about condoms, and those who do simply mention them rather than showing any insight into how they are used

As anticipated, boys are more likely to mention condoms than girls (6.3% of boys vs. 0.3% of girls), and older students more likely to mention it than younger ones.

Children are clearly quite frightened by what they have heard about AIDS, and some think it is an infectious disease, with infection caused by day to day contact, for example:

Don't befriend AIDS patients. AIDS patients should not sit or sleep with others. AIDS patients, while travelling in bus, should not smoke, because it has bacteria in it. When AIDS patients speak to others, germs will spread to others (girl 13yrs)

However, there is very little outright rejection of people with AIDS, and these are outweighed by those who say that we must treat people with AIDS with compassion :

> *It is not true that AIDS spreads from one person to other when are sit near them. The people who are affected are consider outcasts from society. We must not treat them like that. We must go near them, console them and make yourself happy by making them happy (boy 13yr.)*

Summary of what school pupils know about AIDS in Kerala

From the draw and write data on AIDS, there is clearly a lot of basic ground work on AIDS awareness still needed in Kerala (the Bombay data is also similar) - although those who took part in the research were surprised at what young people do already appear to know.

Level of schooling is clearly significant, with pupils in higher grades having both more correct understandings and more misconceptions than their younger school mates. Whilst this may be because the older ones are more prepared to guess at how the disease is transmitted - and to base it on their understanding of how other common diseases are transmitted, there are some suggestions in the data that parents and the media are either passing on incorrect information, or that the young people are misunderstanding what they hear.

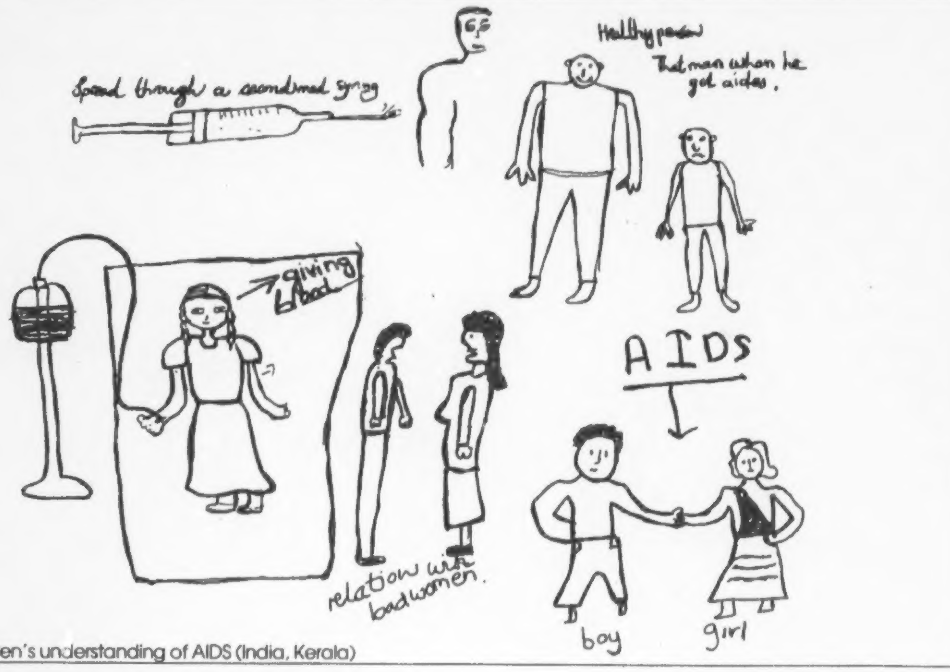

Figure 11 Children's understanding of AIDS (India, Kerala)

2.4 Opportunities for development

Research and evaluation of health education in schools

As already noted, there has been no systematic baseline work on the health of school aged children, or on the potential of the school system to sustain an effective comprehensive health education programme.

There has been a preliminary survey to support AIDS IEC work, in a health centre where HIV/AIDS is suspected to be relatively high. The survey consisted of a structured questionnaire, initially formulated by the medical school, adapted and pre-tested by the IEC department. Following the pre-test, some questions, such as "Have you had any pre-marital sex and, if so, how often with how many partners?" were deleted because they were regarded as too sensitive. No qualitative research was carried out to develop the questionnaire. Results of this study are not yet available.

Although there is no evidence of any current monitoring and evaluation work related to health in schools, monitoring of health clubs initiative is anticipated.

Teacher, parents and pupils support for development in health education

When teachers were asked about what they feel children should learn about health at school, the general view was that there should be a bit more, made more practical. Some suggested improving teaching on hygiene, others see no real need to change what they are doing - as the general opinion put forward by teachers is that teaching on health is "no problem" - with the common comment :

> *"When children ask, their doubts are cleared for them by the teachers".*

The only issue which did get special mention in three of the schools was sex education, with two of those groups mentioning difficulties with embarrassment on the side of both teacher and pupils. Two of the schools specifically raised the need for sex education, and a third talked of the need for guidance of girls coming into puberty.

Amongst parents, all groups agreed that children should be taught disease prevention and health promotion. Particular topics mentioned were: food and nutrition (especially for girls), first aid, contagious/common diseases, water borne disease, pollution, sanitation, functions of the human body. Specific mention of sex education was absent.

Teacher, parent and student support for development in AIDS education

When asked what school students should be taught about AIDS, teachers seemed to agree that AIDS should be taught, with Standard 10 (13-15 year old) being suggested as the appropriate age to start. Two said they already mentioned it - though with very little detail (mainly emphasising that it is a disease without a cure). These same teachers also felt that children already had some awareness of AIDS from the media, but did not know how much children know.

One teacher mentioned that the health science text is going to be revised, and a topic on AIDS is going to be included, in which case "we can give the students more information about this disease".

When questioned more deeply on whether teachers should tackle the sexual transmission of AIDS, and prevention through use of condoms, teachers expressed reluctance. Perhaps most important are the views of those who already teach about reproduction :

> *"We can teach them but there are certain things that they have not experienced so they will find it difficult to understand these facts and we will find it difficult to clear their doubts....*
>
> *By talking about condoms and the use of it, we are giving them a licence to use it and thus giving them the wrong idea. This topic gives an encouragement to them.*
>
> *It is good to give them a warning."*
>
> *"I do not face any problem in teaching about reproduction in the classes. I assume a mother's role in the class and teach them about this topic and the students listen to me. But regarding AIDS being spread through sexual contact and teaching the student about such details is not necessary as they are not going for it."*

Biology teachers were felt to be the most appropriate ones to teach about AIDS (as part of the health science text). However, it was felt that they themselves would need some further training and information.

There seemed to be general agreement amongst parents that children should be taught about AIDS - causes, spread, prevention and consequences of the disease. They emphasised that it should be taught at the appropriate level and with appreciation of the highly conservative culture in Kerala. One group noted that children already get a lot of information through the media about AIDS, and they are inquisitive. It is better that they are taught by the teachers in the school rather than gaining incorrect or partial information from the media. Another group noted that the children should be allowed to ask questions and details about AIDS infection and consequences.

Teachers also did not anticipate problems with teaching about AIDS in schools - since they say that parents "do not interfere" in school activities. This is mainly explained as being due to the illiteracy of the parents, who are only happy that their children are being educated.

From the point of view of the school students themselves, like the groups in the other countries, they had many questions they wanted answered about AIDS. The questions young people have centre around: the spread and origin of the disease; diagnosis and symptoms; if there is a cure; how HIV\AIDS is transmitted and how it can be prevented.

Promising options for development

Despite constraints there are possible entry points for strengthening the innovative initiatives already started in school health education and for developing a programme in AIDS education in schools.

1. Strengthening existing initiatives in health education.

There is a clear interest in the Directorate of Education and the Directorate of Health Services to strengthen the health education component in schools. The school health education unit of the Directorate of Health Services has recently been established, the new school health education programme has just started and the health clubs as planned seem a worthwhile initiative. To enable these programmes to be implemented successfully it will be important to increase the expertise of key staff in the use of interactive teaching methods and also to ensure proper resourcing of health clubs. UNICEF is already supporting further development of school health education through the financing of training seminars. The following possibilities seem to be valuable to explore further :

- Develop greater collaboration between the new school health programme in the Directorate of Health Services and the UNICEF School health scheme in the Directorate of Education.
- Establish a co-ordinating committee and advisory panel for school health at State level. One of the first tasks would be to develop a clear role for the different services.
- Secure resources for training, follow up, monitoring and evaluation of the youth club programme.

- Support the school health services. This has the advantage of increasing regular health check ups and supporting the teachers in dealing with issues they feel as yet not comfortable about. Doctors are encouraged to become members of health clubs to provide specialist information.

2. Developing AIDS education programmes.

The threat of HIV/AIDS could provide a new motivation to look seriously at a new approach to health education in schools. In Bombay, where HIV/AIDS is more widespread and urbanisation is more explicitly changing sexual practices of young people, the need for sex education is strongly promoted by the medical school health services which are based in the Institute of Education.

At State level in Kerala there is a clear commitment to include HIV/AIDS education in schools. The emphasis at the moment is merely on providing correct knowledge and information although some key informants realise that effective health education needs to go beyond didactic teaching of facts. It is likely that emphasis will be put on responsible behaviour i.e. : delaying sex (abstinence) which is already strongly promoted by parents and teachers. However, the information about use of condoms and sexual practices disseminated by the media will leave young people with questions that need to be clarified. There is also concern that this type of education will leave the growing group of sexually active young people at risk without a chance to reflect on and discuss how to negotiate sexual behaviour and practices. Therefore there is a need to start looking at ways to enhance the ability of pupils and students to discuss issues around sexuality and interpersonal relationships. The best option forward seems to be :

a) Urgently develop a teacher training and AIDS education programme which provides basic knowledge on HIV/AIDS for standard 10 onwards.
b) Start developing a more comprehensive programme in collaboration with the health club initiative and initiatives implemented by UNICEF and NGO's such as HEAL.

The following possibilities seem valuable to investigate :

- Identify key personnel involved in school health education to be trained in interactive methods to address health education issues with an emphasis on sex education in relation to HIV/AIDS.
- At the moment there is consensus to start with mentioning sexually transmitted diseases in grade 10 (13-14 years old). It might be helpful to involve NGO's such as HEAL who have gathered some experience promoting dialogue around issues of sexuality with parents and young people.
- Develop qualitative formative research skills to implement action research programmes.

CASE STUDY 3: UGANDA

The Uganda study was conducted in July 1993 in collaboration with the Institute of Public Health, Makarere University. The study focuses on Kampala, but the basic policy information is relevant to the country as a whole.

3.1 *The general context*

Health and AIDS situation

The current population estimate for Uganda is 17.6 million, with an annual growth rate of 2.9% (Census 1991). Roughly 50% of the population are in the age group of 0-15 years.

The infant mortality rate reported from the 1991 national census is 122 infant deaths per 1000 live births. Diseases which affect children especially are related to nutrition, water and sanitation, and natural and domestic environments. Overall, about 45% of all children in Uganda are chronically undernourished and stunted. The common causes of child and infant illnesses are malaria, acute respiratory infections and diarrhoea. Leading causes for under five mortality are malaria, nutritional deficiencies, diarrhoea, acute respiratory infections and measles.[10]

Most women (80% in several studies) are aware of one or more contraceptive methods but only 21% have ever used a contraceptive and only 5% are currently using a method.[11]

Unlike the other three countries included in this study, AIDS is the number one health priority in Uganda[12], being the leading cause of adult death with reported cases doubling every 12 months, and the sixth leading cause of death among the children under five. In mid-1991 an estimated 1.5 million Ugandans (20% of the sexually active population) were HIV+. AIDS cases officially reported were 24,977. AIDS incidence peaks in the 25-29 yr. age group for males and in the 20-24 yr. age group for females - almost six times as many girls as boys have AIDS in the 15-19 yr. age group, and almost twice as many in the 20-24 yr. age group. Although it is known that some young girls do have older partners, there is as yet insufficient understanding as to why the disparity is so great.

There is enormous geographical variation, with infection rates as low as 2%of sexually active adults in some areas, and as high as over 30% in others (including urban Kampala, where the in-depth school studies were carried out). Rates are also high in areas which have suffered considerable civil unrest in the past ten years. A consequence of both the civil unrest and AIDS is the very high level of children who have lost one or both parents. The 1991 census recorded 1.5 million children below 19 yrs. who had lost one or both parents. USAID, UNICEF and SCF estimate that there are now in the region of 115,000 AIDS orphans, and that this will increase five-fold in the next five years.

Health education in Uganda: an overview

Health education in Uganda is implemented through the Health Education Division of the Ministry of Health. As well as having a central health education unit, the division is responsible for the Health Education Network (HEN), which is coordinated by the National Health Education Steering Committee. HEN was established in 1987, to give health education a more prominent role in supporting ongoing and new health projects within the primary health care strategy. Key concerns when HEN was set up were to reduce mortality and morbidity among children and promote other health activities among the general public.

HEN has started to create a cadre of health educators at district level. At the moment 40 district health educators and 66 assistant health educators are based in the districts. The target is to train enough assistant health educators to place one at each sub-county (totalling 760 AHEs). Health educators are involved in a wide range of activities which are implemented at district level, including school health education programmes aimed at AIDS prevention, water and sanitation, communicable disease control. Health educators are members of the training teams for school teachers. Health educators are supposed to support school health through school visits and monitoring of what is taught.

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[10] Uganda National Situation Analysis of Women and Children, Issue paper August 1993.

[11] UHD's 1988/89 in issue paper on Uganda National Situational Analysis of Women and Children, August 1993.

[12] Subsequent data on AIDS in Uganda are taken from: UNICEF's response to HIV/AIDS in Uganda Update February 1993.

The Ministry of Health is also responsible for school health services - but does not have a fully operational programme.

Within the Ministry of Education and Sport there is the School Health Education Project (SHEP). SHEP, like HEN, was launched in 1987. Its objectives are :

- To develop a curricula for health education in schools and integrate health education into the existing primary school curricula.
- To teach school children life-skills in health in a way that will stimulate them to change their behaviour and also to pass their knowledge on to parents and other children.
- To integrate AIDS prevention in the school curriculum

SHEP is coordinated by the Inter-Ministerial Advisory Panel (IMAP). Members of IMAP include technical staff from the Ministry of Education and Sports (MoES), Ministry of Health (MoH), Ministry of Agriculture (MoA), Ministry of Women In Development (MWID), Ministry of Local Government (MoLG), and representatives of UNICEF, WHO, AMREF, Child-to- child, the Medical School of Makerere University, and Uganda Red Cross.

There appear to be some disagreements about the role and status of IMAP. However, one important viewpoint is that the coordinating office of SHEP should be confined to organising national level training courses, production and distribution of SHEP materials. Responsibility for supervision and monitoring of the project implementation should be at the District Education Office with funds for fuel and vehicles managed at district level. This seems a worthwhile proposal.

Both SHEP and HEN attract substantial donor support. UNICEF, CIDA, SIDA and USAID are covering programme costs, with the government funding staff salaries. The World Bank is expected to fund a new diploma course in health education in Makerere University.

In addition to SHEP and HEN, there is also an extensive Child-to-Child programme. This is primarily a donor-driven programme, (ODA, UNICEF and a Norwegian agency) implemented by the Institute of Teacher Education in Kyambogo (ITEK) Kampala. It is based on the UK Child-to-Child Trust ideas aimed at promoting the health of children, their families and communities, through the active participation of children in health issues.

Child-to-Child again has a national steering committee, chaired by the principal of ITEK. Other members include representatives from the MoH, MoES, MoLG, NGO's,the Vice Chancellor of Makerere University and the Head of the Child Health Development Centre. Several of these members are also part of the IMAP.

Child-to-Child also has a National Coordination Committee which consists of 15 zone coordinators plus the coordinator of the Child-to-Child programme and 4 members of the steering committee. Decentralisation of monitoring and supervision is recommended by the Child-to-Child programmes and the ones implemented in Kabale and Jinja, where Child-to-Child programmes work in close cooperation with the District Education Office, are perceived as doing well.

Child-to-Child collaborates with a number of other non-government organisations - for example:

- AMREF on Child-to-Child and health education in schools,
- RED BARNA on AIDS orphans,
- SCF on Child-to-Child in children's homes
- Uganda Red Cross on Safety, AIDS Control Programme,
- Minds Across on children writing for children,
- International Christian Children on Productive Education, self confidence building and self reliance for out of school children.

Two teacher training colleges along with eight associated schools are involved in the Child-to-Child project: Buloba Teachers college and Nzigo Teachers College. They work through child-to- child activities across the curriculum, explore collaboration with MoH activities and stimulate outreach activities.

At least 181 known schools participate in so called "self- generated" Child-to-Child activities. These schools take it upon themselves to organise Child-to-Child activities which are recorded in school action plans. Activities are chosen to be in line with the SHEP health education curriculum. Children make posters, songs and drama related to health education messages.

Links between the AIDS control programme and education

It is not coincidental that 1987, the year that the health education initiatives described above were started, is also the year that the Uganda AIDS Control Programme (ACP) was started. AIDS has been seen by several key informants to have been the catalyst for many of the health education developments and innovations, which have yet to emerge in the other countries included in this study.

Public health education was a major ACP component from the start, and has been subjected to monitoring and evaluation at several points. Recommendations from the 1991 review[13] indicated that public awareness of the disease is high, but that

> "AIDS educational activities should move from the focus of information provision to the open discussion of sexuality and sexual behaviours and the personalization of risk of HIV/AIDS so that all efforts are concentrated on supporting and maintaining realistic and culturally relevant options of sexual behaviour.
>
> The information collected in this evaluation exercise...indicates very strongly the need to offer a multiplicity of behaviourial options in order to control the spread of AIDS"

This statement has important implications for the content and style of AIDS education in schools, stressing as it does the importance of moving on from transmission of the basic facts about HIV/AIDS, to discussion of sexual behaviour.

There are close connections between the ACP and SHEP, and HIV/AIDS is addressed in the school curriculum.

The other main connection between school education and AIDS work is the **Safeguard Youth From AIDS** (SYFA) movement. This is a combined initiative of UNICEF, Uganda AIDS commission, the AIDS control programme and the AIDS Information Centre, which aims to reach in and out of school adolescents. Schools are stimulated to help establish health clubs, hold drama competitions, establish fellowships. SYFA is supporting research into how young people can protect themselves against AIDS, and organisations whose target group is working with young people.

Health and AIDS education needs assessment for curriculum development

To date, neither the Ministry of Health nor the Ministry of Education and Sport have undertaken any kind of detailed health survey focused on school-aged children. Main causes of mortality and morbidity can only be extrapolated from general population data. However, there is a considerable body of evidence on adolescent sexuality which could be used by curriculum planners. Much of this has been brought together in a comprehensive review carried out by Barton and Olowo Freers (1992). It shows that acknowledgement of pre-marital sexual experiences differs by region (for example 18.5% in Northern Madi, 44% in Kampala). Findings of different studies carried out in Kampala show an average age for first sexual experiences ranging between 13.6 and 15.7, with some children starting as young as 10yrs.

There are many Knowledge, Attitude and Practice (KAP) studies related to HIV/AIDS. An example of such a study was carried out by AMREF among primary school students in Kabale District (Bagarukayo et al 1992). This study also shows that there is a high level of sexual activity in Primary level 7 (average age 13.94) with 38.5% of females and 61.5% of males stating that they had already experienced sexual intercourse. A worrying factor is the stated increase of forced sexual activity since 1989. 49% of the sexually active girls and 20% of the males reported being forced to have sexual intercourse and 22% of the females said they had received gifts or rewards.

3.2 Health and AIDS education: curriculum activities

Health education curriculum and textbook contents

In 1987 health education was integrated into the basic science curriculum on a basis of 40% health education and 60% science. A syllabus, teacher guide, pupil text books, school health kits (on AIDS, water and sanitation, diarrhoeal diseases, and immunisation), Primary Leaver Examination (PLE) syllabus and specimen paper, and a consolidated PLE syllabus 1991-1995 were developed.

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[13] An evaluation study of Uganda AIDS Control Programme's IEC activities Draft report 1991 ACP/MoH and WHO/GPA

Subjects taught as part of the Basic Science and Health Education Curriculum at primary schools are :

Hygiene and Sanitation
Common Diseases
Primary Health Care
Food and Nutrition
Immunisation
Family Health and Social Problems
Accidents and First Aid.

Education on HIV/AIDS is integrated in grade 6 and 7 of primary schools as part of the teaching on STD's.

At secondary level, health education does not form a distinct part of the curriculum, but is integrated into science subjects (especially biology).

AIDS is included in the biology syllabus, within a section on common diseases. A special AIDS pack, *A safer living, safer loving* has been produced for secondary level students by Macmillan's publishers, in conjunction with TASO (the AIDS support organisation).

Evidence from the policy analysis and from the teachers suggests that most of the teaching around health focuses on:

1) issues concerned with personal health and hygiene, such as mention of specific diseases, disease vectors, personal cleanliness, diet and food hygiene, drugs (including smoking and alcohol), exercise, accidents
2) issues concerned with personal relationships (with parents, with friends, and with self)
3) issues concerned with the environment (both local - such as sanitation facilities, housing, refuse disposal, water quality and more general - such as pollution from traffic and industry, and deforestation)

Health and AIDS education practice

Teachers perceptions of what is taught

Evidence from discussions with teachers confirms the conclusions of the "policy" document that health issues are quite extensively covered within the school curricula - both primary and secondary.

Health issues specifically mentioned by teachers included:

- nutrition : how to obtain food; why is it important; balanced; diet nutrition related diseases
- diseases: how caused (eg: bacteria, viruses, houseflies, mosquitoes); the different organs affected; diseases like AIDS, common diseases like diarrhoea, typhoid, cholera etc.
  Also diseases caused by poor conditions of living, dirty water and the like
- cleanliness, personal hygiene, sanitation,
- physiology of humans. How different parts work. We discuss reproduction, how to build up a good family, control of birth.

Teachers also confirm their role in AIDS education, with some being very clear of its importance:

> "It is a matter of survival so then it must taught. If you want to perish then leave it. Be it in or outside class. A class environment is ideal. " (primary school teacher)

Teachers from the SHEP "model" school , and from one other secondary school also confirmed their involvement in extra-curricular activities, including "Hydra", a drama competition (this is picked up later in the children's responses).

General teaching methods

In general, teaching methods in Ugandan schools are didactic and teacher centred. Large classes (for example 100-150 children in one class in a Kampala school), and limited teacher training and resources militate against innovation. Reviews of in-service training where participatory methods have been introduced show that, when teachers are subsequently followed up, the majority have lapsed back to basic "chalk and talk". However, this general picture should not overshadow the efforts of some teachers, who attempt more participatory teaching styles (eg:involvement in the Hydra drama competition mentioned above).

There are examples also of support for more active teaching in the SHEP materials. The secondary level book: *A safer living, safer loving*, for example, encourages "participatory learning through the use of active learning methods, such as role play, small group discussions, case studies and interactive radio and community action projects, which go beyond the classroom and can help pupils to explore and practice positive health behaviours."

Teacher preparation

Pre-1987, teacher preparation for health education was limited, and ad hoc. With the start of SHEP, a 5-day in-service programme was introduced for primary school teachers. This was extended to a 10-day course in 1989. There are 37 facilitators at national level available to run these training courses.

There are now moves to introduce health education into basic teacher training, as a specialist subject area. Work on this was started in 1992, and was due for implementation in 1993/4. Already, 50 college tutors have received training.

Preparation for teaching about AIDS takes up one day in the 10-day primary teacher programme. Secondary teachers were given a "crash course" by a Ministry of Health task force in 1989.

The other form of teacher preparation is for the Child-to-Child programme. The Institute of Teacher Education (ITEK) provides a one week course for zonal coordinators, who then train teachers in their own zones. Two other training colleges are also involved in this programme.

There is clearly a lot of activity and thought that has gone into teacher training for health, and especially for AIDS education. However, there are still problems with it. SHEP requires considerable adaptability and energy on the part of teachers, and appears to work most effectively in areas where there is good NGO support to schools. Another problem is that there are few female teachers involved in AIDS education in schools - they rarely are selected for in-service training.

Supportive environments

School environment

Teachers see the problem of teaching children about health in an essentially unhealthy environment - and when teachers and parents themselves often demonstrate unhealthy behaviour:

> *"Smoking is bad but ..." [teachers still smoke]*
>
> *"Pollution is bad and yet when they go out the students see that nobody cares"*
>
> *"We talk about balanced diet - when the school meal is beans and posho (maize meal); tell them to drink boiled water when the school itself does not provide boiled water."*

During visits to schools researchers made a note of toilet facilities for the children. Numbers ranged from 150-200 children per toilet - and cleaned at best once per day. Whilst all the schools visited were in good condition and quite well maintained, the comparison between urban and rural schools indicates quite different standards.

Additional support for health and AIDS education within the school context

There are a wide range of innovative activities - either organised as extracurricular or out of school activities - sponsored by a range of government and non-government organisations.

Health workers and specially trained AIDS counsellors do **special sessions on AIDS** in schools. For example, TASO (the AIDS Support Organisation) has trainers who will go to schools on request.

SHEP produces a **magazine**, which, amongst other things, encourages children to talk about different health issues, including AIDS.

Drama is seen as an important medium for AIDS education. In 1991 a drama competition was organised. Two plays were written : Hydra for secondary schools and the Riddle for Primary schools. The primary school drama script was prepared by a group of professionals and given an open ending. The children are then expected to design their own endings. Drama is seen as a medium to address issues that cannot be addressed in the classroom. Situations out of control of the children such as sexual abuse and economic needs are addressed in the play the Riddle. TASO is also planning to use drama in AIDS education.

Essay competitions have been organised. These could provide a fascinating data base of children's experiences of AIDS, if analysed carefully.

Clubs are also proving popular. Both TASO and the Safeguard Youth from AIDS(SYFA) movement are actively involved in establishing and maintaining these clubs. TASO has just started forming Youth AIDS challenge clubs. The initiative started with young secondary school youth who had lost at least one parent. The methods used are participatory and start with what the participants want to know. Discussion is focused on expelling myths about the disease and providing a comfortable climate in which to discuss questions about their own sexuality: How do they feel? What do they think about having sex at this time in their lives?

At least 181 known schools participate in so called "self- generated" Child-to-Child activities. One encouraging initiative is AMREF's special project in collaboration with SHEP (1992-95) to combat the spread of AIDS in the primary schools of Kabale District, using a Child-to-Child approach.

3.3 *The concerns of young people*

3.3.1 General Health concerns

Table 9: What do children think makes them "unhappy and unhealthy"?

Issue (including most salient sub-issues. Note: a pupil may mention more than one sub-issue)	Total number of pupils who mention the issue	% frequency N=688
food hygiene	**344**	**50%**
uncovered food/flies on food	224	
contaminated drinking water	196	
unwashed food	75	
latrines/water sources	**339**	**49%**
broken latrines/urinating outside	170	
dirty water sources	159	
dirty pit latrines	135	
relationships with parents	**336**	**49%**
death of parents (actual and feared)	173	
beating/abuse from parents	92	
local environmental hygiene	**265**	**39%**
dirty surroundings	140	
poor housing	105	
rubbish everywhere	61	
specific diseases	**246**	**36%**
AIDS	162	
diet	**207**	**30%**
not enough food/starvation/famine	115	
unbalanced diet	70	
vectors	**206**	**30%**
flies	93	
mosquitoes	60	
problems at school	**166**	**24%**
fear of failure/bad marks	68	
problems with teachers (beating; teachers absent; favouritism)	47	
accidents	**164**	**24%**
road traffic accidents (cars and bicycles)	115	
political/social issues	**161**	**24%**
poverty	83	
relationships with friends	**140**	**20%**
quarrelling/bad friends/bullying	95	
drugs	**135**	**20%**
smoking	80	
alcohol	63	
pregnancy	**130**	**19%**
pregnancy/lack of family planning	72	

From the summary in table 9 it is clear that the children associate many of the issues taught and raised by the teachers with what makes them unhappy/unhealthy. Whether they raise these issues because they are taught or because they are concerned about them cannot be distinguished easily. However it is more likely that issues which are not taught but spontaneously raised by the children are issues that they strongly associate with health and happiness.

The summary statistics mask the richness of the children's responses. The following extracts from children's drawings and comments give some flavour of their views and an idea of how health teaching is conducted.

Children's concerns related to familiar health education teaching

Hygiene

> *Someone who is eating hates seeing someone who is defecating in front of him because it is unhygienic. - it flies carry germs from faeces and urine to the food another person is supposed to eat, that person may come without washing the hands and eats the food. On eating the food, the germs go into the person's stomach and can easily cause disease" (boy, 12yr..)*

The health environment of schools and localities

The views expressed in the following quotations give some insight into the "health environment" of schools and of localities.

> *Our school toilets should be repaired, the pits are broken there is no water for cleaning the toilets after use. our urinals are so dirty to look at, they have green plants grow on them the urine can't pass through because where the urine is to pass it is blocked....our latrines should be built far away from water source because when the urine is blocked all the faeces will move to the water source. (boy 12yrs)*

> *Things that make me sick and unhappy are: dust bins which are not cared for by city council, poor sanitation, unprotected container filled with garbage. these things make me sick in the way that if these things are not cared for well, people around this place will get diseases e.g.: i)diarrhoea ii) malaria iii) cholera iv) trachoma etc." (boy 14yr.)*

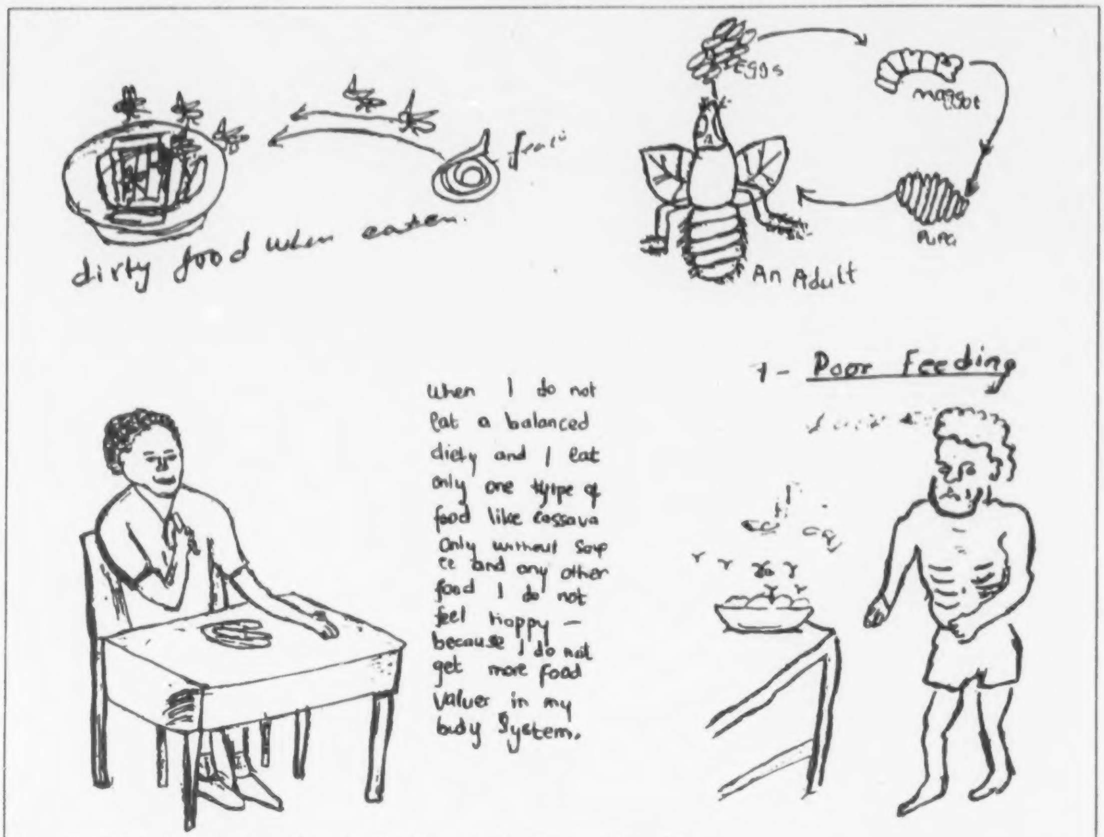
feces
dirty food when eaten.
Eggs
maggot
Pupa
An Adult
1- Poor Feeding
When I do not eat a balanced diety and I eat only one type of food like cassava Only without Sauce and any other food I do not feel happy — because I do not get more food Value in my body System.

Figure 12 Children's awareness of personal hygiene, diet and health (Uganda)

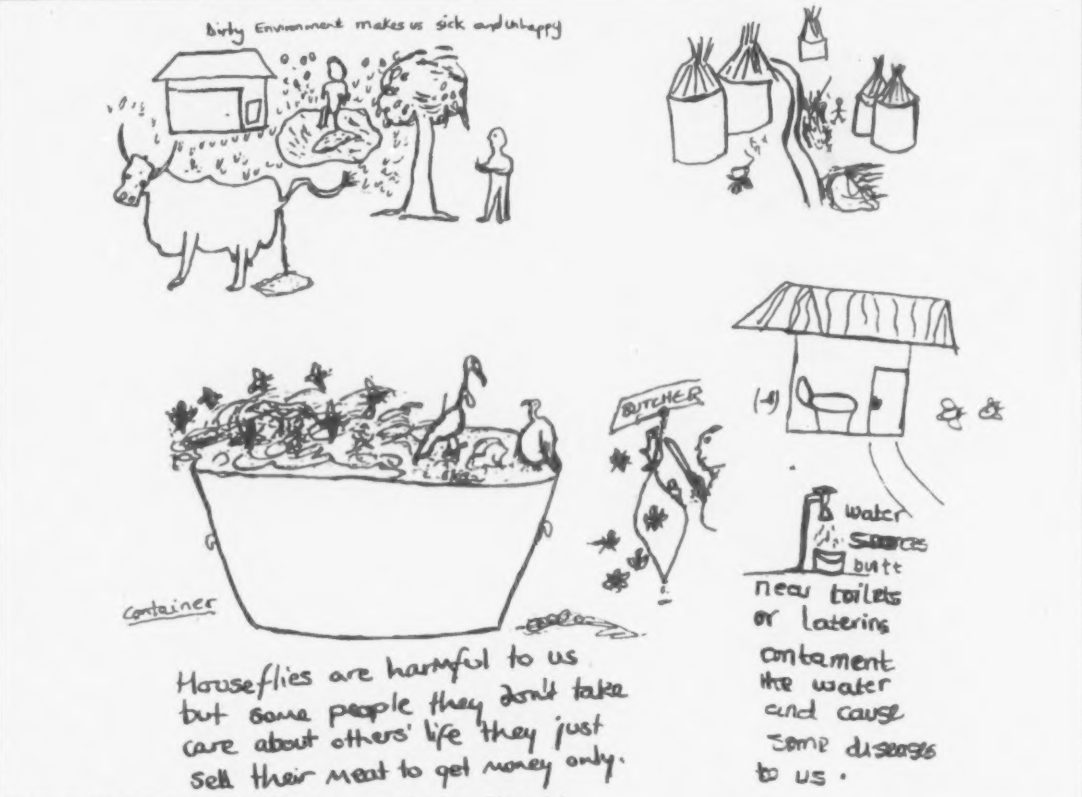
Dirty Environment makes us sick and unhappy
BUTCHER
(-4)
water
sources
butt
near toilets
or laterins
contament
the water
and cause
some diseases
to us.
container
Houseflies are harmful to us
but some people they don't take
care about others' life they just
sell their meat to get money only.

Figure 13 Children's concern with environment hygiene (Uganda)

Concerns which are not directly related to health education teaching

Problems with parents

Of the concerns mentioned which are not directly related to the textbooks almost 50% of the young people involved in the study describe concerns about their parents. Many express a general worry about parents dying. In most cases this appears to be something which worries them rather than something which has actually happened to them. Another common concern is with "beatings", for example:

> *What can make me unhappy is over beating in both homes and schools. Most parents and teachers do like beating too much. And the beating is not the one to three they say the least is three...... I feel that beating a child without making he/she understand that he has done is bad. (boy 15yr.)*

Another source of unhappiness is related to how the children see their status in relation to others in the household:

> *we some of us who are staying with in laws - sisters - you find that you can be coming from school you are very hungry but you find your sister in law taking evening tea. Instead of welcoming you just say get a paper bag to go to the market to buy food.. ...Not only that but again when you will come back from market, you will still get her on her mat and tell you I want to take a bath. And meanwhile you have finished taking water she goes to bath only bathing will finish 3hrs. You will prepare supper to take to the bedroom for her afterwards. She will start complaining that the food is not ready is even burnt, who will eat this, then she say go and buy for me bread. Quickly even if its dark but you have to go. If you refuse she start abusing you then I start crying after that she say I count 1,2 when all your tears has disappeared." (girl 15yrs)*

> *What mostly makes me unhappy is a family in which I come from. I am living with a cousin of mine but his wife makes me sick. She doesn't want me to sit down and concentrate on my books. All the time she wants me to do house work - when I try to sit and read my books she comes pointing at me pouring out bitter words. really my dear friend I don't know what to do about this."(boy 16yr..)*

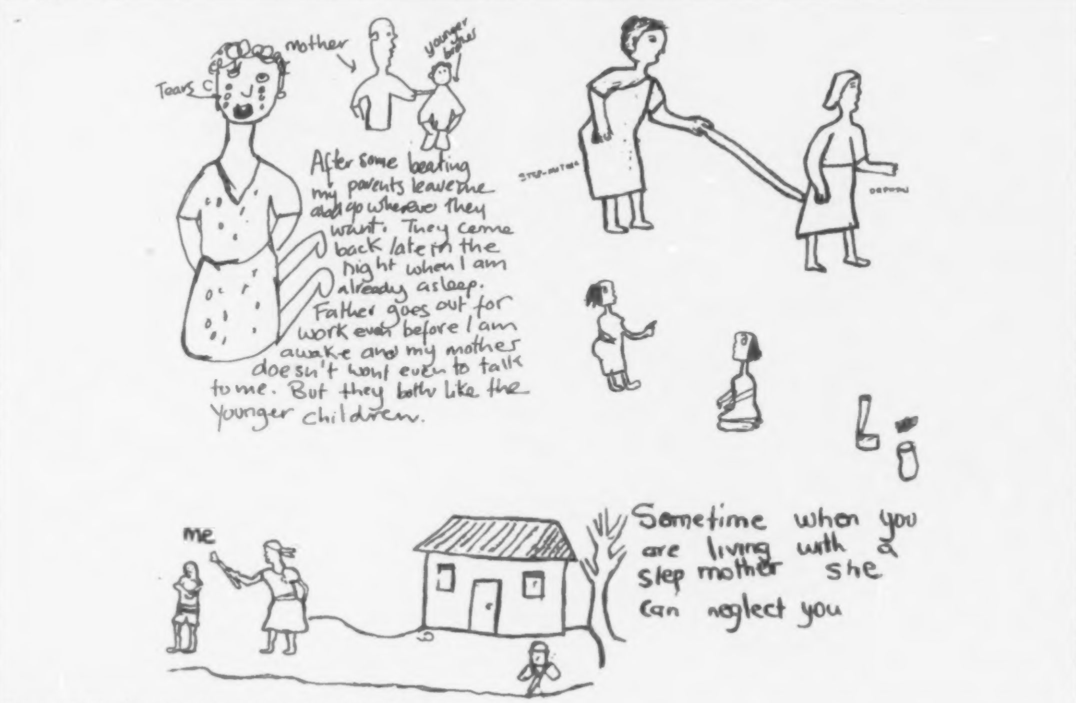
mother
younger brother
Tears
After some beating my parents leave me and go wherever they want. They come back late in the night when I am already asleep. Father goes out for work even before I am awake and my mother doesn't want even to talk to me. But they both like the younger children.
STEP-MOTHER
ORPHAN
me
Sometime when you are living with a step mother she can neglect you

Figure 14 Worries about parents and relationships

Concern about drugs

19.6% of respondents included various forms of drug addiction in their views of what makes them unhappy and unhealthy. Smoking predominated, followed by alcohol. Some also mention passive smoking and related smoking to diseases, especially cancer.

Most images and comments on alcohol were general. However, several associated it with fathers drinking beer and then becoming abusive with their wives and children. In the children's comments on AIDS, alcohol is also seen as a "danger problem" as it is associated with discos, other drugs and sex.

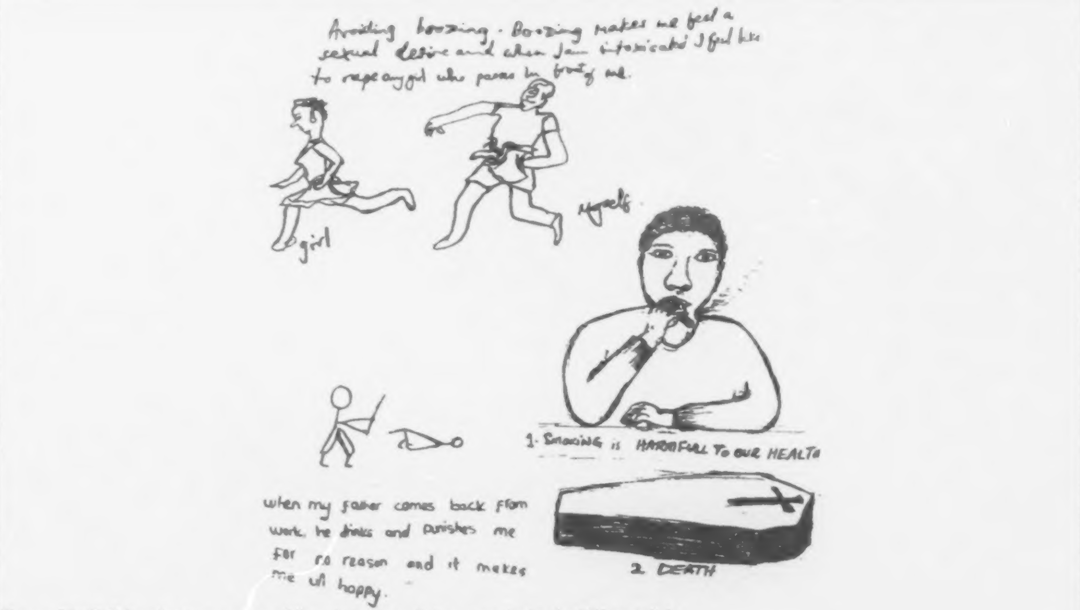
Avoiding boozing. Boozing makes me feel a sexual desire and when I am intoxicated I feel like to rape any girl who passes in front of me.
girl
myself
1. SMOKING is HARMFULL TO OUR HEALTH
2. DEATH
when my father comes back from work he drinks and punishes me for no reason and it makes me un happy.

Figure 15 Children's awareness of the dangers of drugs and alcohol (Uganda)

Concern about accidents

Just under a quarter of the pupils involved in the draw and write exercise refer to accidents - the majority of these being road traffic accidents. Other accidents include getting burnt on fires, injuries from playing and poisoning.

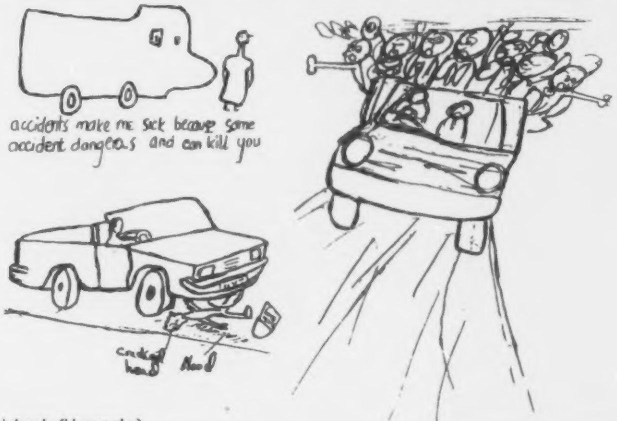
accidents make me sick becouse some accident dangeous and can kill you
cracked head
blood

Figure 16 Worry about accidents (Uganda)

Concern about pregnancy

Unwanted pregnancy was a concern expressed by about a quarter of the girls in the sample. Fears around this focus on the isolation of the girls: several of the images of pregnant teenagers show a girl on her knees in front of an angry parent, ready to beat her; others talk of persuasion tactics of young men trying to encourage them to have sex - and then dumping them when they become pregnant; some mention how pregnant girls can be "chased away from school".

> *For the care of the pregnant girl, I think she need more love that ever because in her solitude she fails to notice any love - which she needs most - the whole world is against her - so death is the solution she gets which is very unfair (girl 16yrs)*

Some of the boys also mentioned pregnancy as a problem but their view of it appeared to exclude the role of boys in teenage pregnancies. It appears to be seen as "their (i.e. girls) problem":

> *They are brought into troubles because they cant say no to sex or they tell their faithful partners to get rid of the use of a condom (boy 16yrs)*
>
> *......school girls who produce unwanted babies and then throw then in pit latrines after seeing that they are bad (boy 16yr..)*

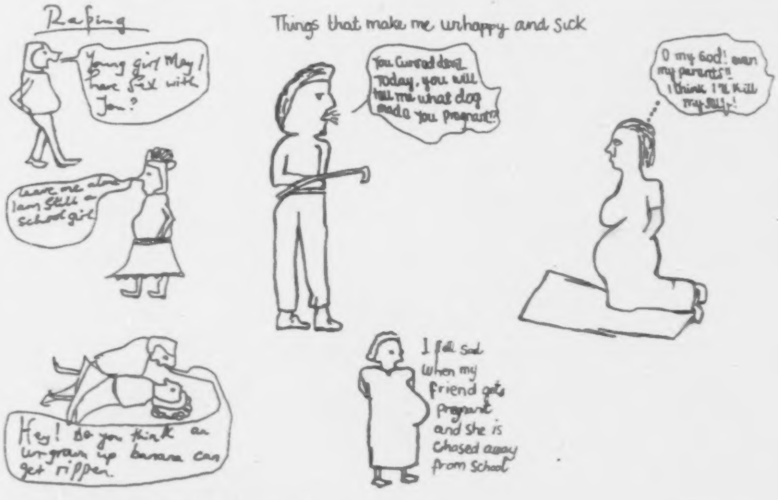
Raping
Young girl May I have sex with You?
leave me alone I am still a school girl
Things that make me unhappy and sick
You Cursed dog. Today, you will tell me what dog made you pregnant!?
O my God! even my parents!! I think I'll kill myself!
Hey! do you think an ungrown up banana can get rippen.
I feel sad when my friend gets pregnant and she is chased away from school

Figure 17 Fear and worries about pregnancy (Uganda)

3.3.2 Children's understanding of AIDS/HIV

194 (28.2%) of the young people who took part in the draw and write exercise specifically mentioned AIDS as something which makes them unhappy/unhealthy - before they were aware that they were going to be asked to give further information on their awareness of AIDS. Secondary school children were much more likely to mention AIDS (40% of them raised it as an issue compared with only 8% of primary school children).

If one combines mention of use of condoms, HIV testing before sex, and other comments on sexual practice, over 80% of the sample specifically talk about the connection between sex and AIDS - and most of those who don't mention sex directly imply it.

Ideas about prevention

When asked to draw and write about how they can protect themselves from AIDS, all were able to write something, and the majority of the sample could put forward at least six different ideas on how to protect themselves. Girls tended to put forward more ideas than boys.

Table 10: Ranking of ideas put forward by the total sample

School pupils' ideas on how they can protect themselves from AIDS (Issues raised by 20% or more of the children).	**Number of pupils raising the idea**	**% Frequency N=688**
using condoms for protection	417	60.6%
taking care in hospitals - ensuring new needles used/equipment properly sterilised	391	56.8%
having blood tested (blood transfusions and also HIV testing for sexual partners)	317	46%
abstaining from sex/keeping to one faithful partner/avoiding casual sex, promiscuity, adultery	233	33.9%
avoiding people with AIDS (PWA)/ segregating certain groups eg:prostitutes and PWA	177	25.7%
HIV tests (NB: subset of the third item, referring to frequent testing of sexual partners/testing before sex or before marriage)	137	19.9%

One thing which is significant to note is the very small number of pupils who put forward misconceived ideas about how to protect themselves from AIDS. A total of 11 suggest that you can protect yourself through contraceptives other than the condom (the diaphragm, coil and pill are mentioned), or by using tampons. Only 22 talk about avoiding close contact with people - eg: not sharing food, standing close to people, etc. The students who put forward these ideas were from across the seven schools, with only two or three per school.

Protection against AIDS: use of condoms

60% of the children participating in the draw and write exercise talked about the use of condoms in AIDS prevention. There was some difference between primary and secondary groups but the difference is not significant when you compare by age group (using 14yrs as the cut off point) - indicating that the difference is more "school related", with one of the primary schools showing a substantially lower frequency of mentioning condoms than the other.

Boys were more likely to talk about condoms than were girls. In many cases the idea was simply portrayed by writing "using a condom", often with an image of a male with erect penis, or of a condom packet. Several of those who drew condoms or condom packets also included brand names - especially "protector" and "sultan", and quite often with "made in the USA" written on them. A few boys gave long lists of condom brand names. There is also some confirmation from teachers, through the focus group discussions, that boys not only know about but buy and use condoms :

> "at least every week five pupils buy condoms in a nearby shop - the pregnancy rate has dropped tremendously, maybe it is because of HIV infection, use of condoms, financial hardships of male students i.e.: they don't go in for female students"

A number of boys expressed some distrust in the safety of condoms, believing that "A condom may be 90 percent safe but not a hundred correct safe because it may be dangerous to use a condom which has past from date shown on the bag" and that condoms can have perforations which renders them unsafe.

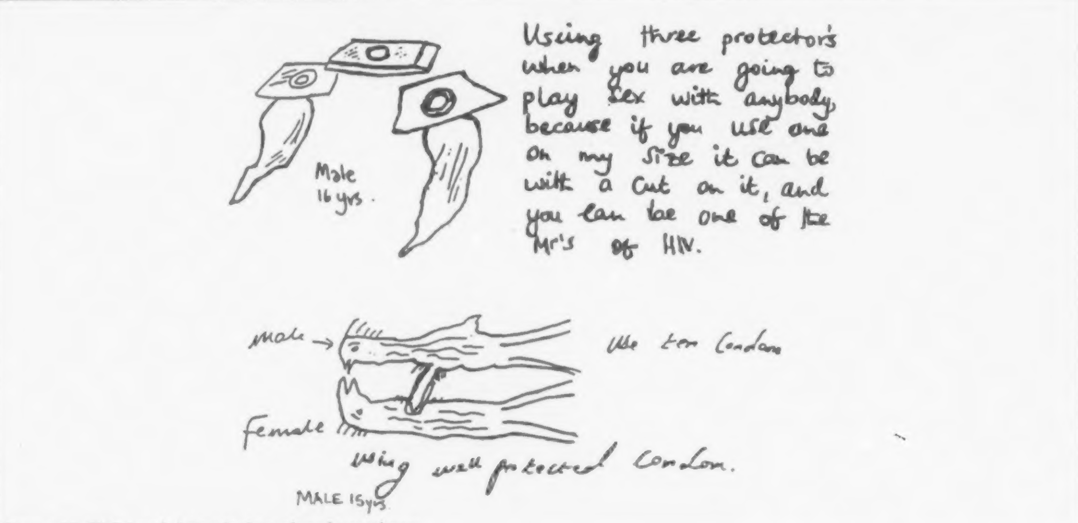
Useing three protector's when you are going to play sex with anybody, because if you use one on my size it can be with a cut on it, and you can be one of the Mr's of HIV.
Male 16 yrs.
Male →
Use ten Condoms
Female
Using well protected condom.
MALE 15yrs

Figure 18 Children's knowledge about condoms

Ensuring good practice in hospitals, and testing blood for HIV

56% of the sample include one or more ideas related to the use of sterile instruments in hospital - ensuring that new needles are used, that instruments are properly sterilised, or that you take your own needles to hospital. The girls mentioned these ideas more than the boys and they were also mentioned more frequently by primary school children than secondary school children.

46% also mention the importance of checking blood for HIV. Around half of these refer to checking blood used in transfusions. The rest talk of HIV testing before sex, before marriage, or regular testing for couples. Neither the general issue of blood testing, nor testing connected with sexual relationships differ significantly by age or sex.

Arising out of this data are two issues which may cause concern to educators :

i) a number of comments associated with the notion that some health personnel are actively trying to infect people with AIDS

ii) the apparent trust in HIV testing as a form of "protection" - and, if these young people actually follow through what they are saying with action, the massive strain there would be on HIV testing.

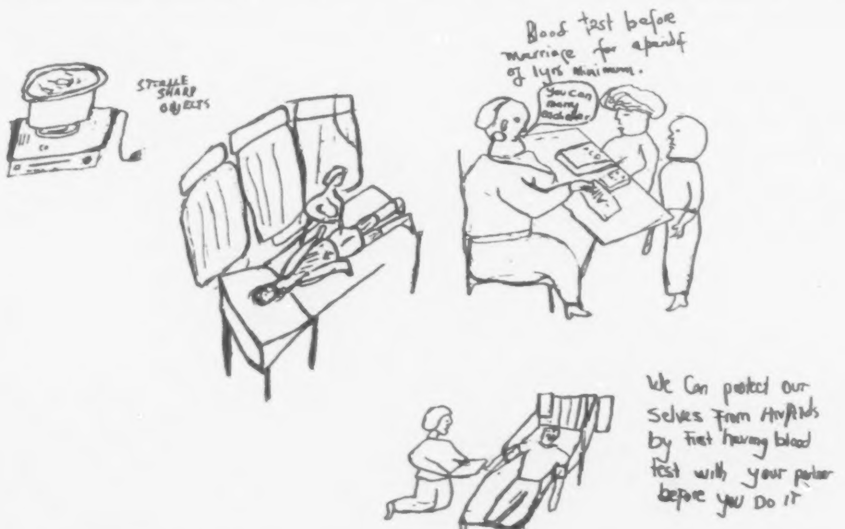
STERILE SHARP OBJECTS
Blood test before marriage for a peridf of 1yrs minimum.
You can marry each other.
HIV
We Can protect our Selves From HIV/Aids by First having blood test with your partner before you Do it

Figure 19 Hospitals, blood tests and AIDS/HIV

Protection by abstinence ('avoiding temptation') and monogamy ('zero grazing')

One third of the sample talk about abstaining from sex, sticking to a single partner, not indulging in casual sex or committing adultery. This view is more common amongst primary than secondary school children.

> *It would be best for one not to play sex at all then when you've got a partner who has proposed marriage and your willing, you go for an HIV test and if you are both negative you can get happily married. 3. Avoid accepting boyfriends who have so many other girl friends and indulge into promiscuous sex exploits when they are still young because if your to marry such a man with a teenage background of that kind he is very likely to be unfaithful during your marriage life." (girl 15yrs)*

Only 7% specifically talk about avoiding sex with prostitutes or homosexuals.

17% of the sample make the connection between sex and discos/ bars/drinking - saying that to avoid AIDS you need to avoid places where you are likely to be tempted to have sex.

There are a few pictures of the media phrase "zero grazing" showing a tethered cow - with explanation to its meaning.

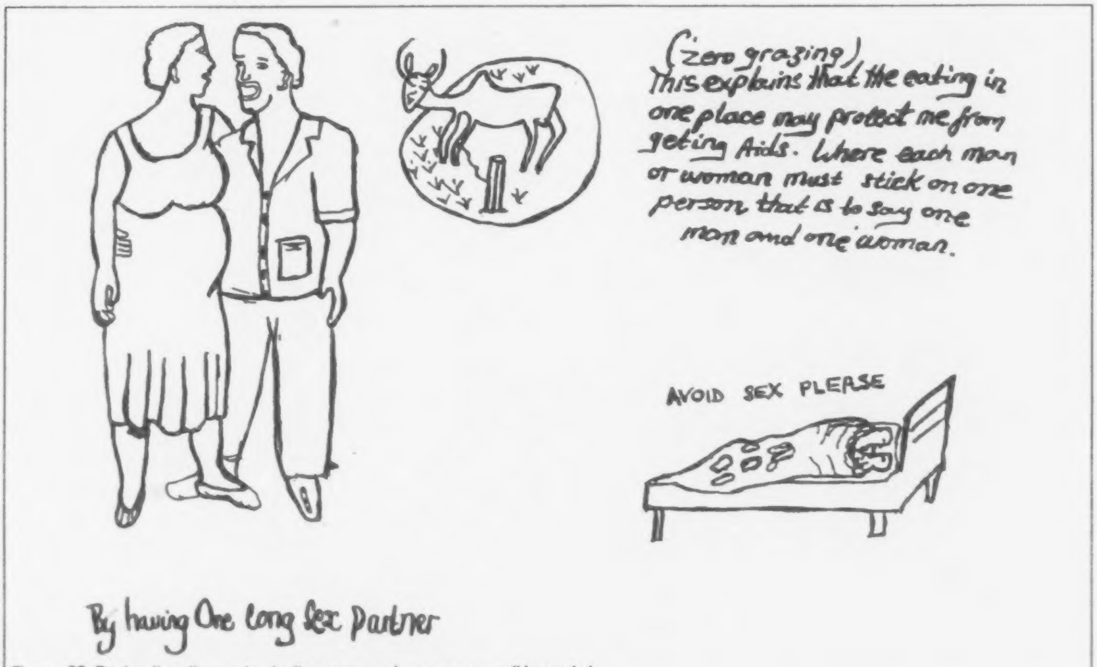
(zero grazing)
This explains that the eating in one place may protect me from geting Aids. Where each man or woman must stick on one person that is to say one man and one woman.
AVOID SEX PLEASE
By having One long Sex Partner

Figure 20 Protection through abstinence and monogamy (Uganda)

Girls' perception of their vulnerability, and their ideas on how to protect themselves

It is interesting to note the that girls' feelings of vulnerability to the threat of pregnancy is frequently linked to a fear of becoming infected with HIV/AIDS. The threat of rape, persuasion tactics of young men, material "bait" offered by adult men (a couple specifically mention teachers getting sexually involved with pupils) are some of the concerns expressed in the images and comments.

> *.......I feel unhappy when a boy runs after me really also me feel sick because this time is an aids era when you see like boy wanting to make love to you, you know he wants you to die which I dislike so much. On addition to that it is so amusing to that a boy can make a girl pregnant and afterwards denies the pregnancy. (Girl 19 yrs)*
>
> *Being raped by adult people who some times have got aids... some parents don't give their children things they need when sometimes their useful so children end up looking for people who will provide then money where by they get pregnancy because you cant take peoples money for nothing who is not our mother or father. You can imagine nowadays thing changed even cousins don't respect each other (girl 15yrs)*

What can girls do to protect themselves?

Inform adults of boy's advances

Some try to protect themselves by telling their parents or teachers.

> *...By giving any letter I receive from a boy to my mother because I don't fill settled with a letter from a boy. I give it to my mother to know the boy who disturbs me, he can rape me and I get pregnant and he refuses the baby. I will have evidence to show that he is the father of the baby my mother will know everything that he used to write and talk. (girl 15yrs)*

Avoid bad company

Some recommend avoiding bad company:

> *You may have a friend of yours who is very interested in sex affairs. This friend is not a good friend because she might lead you into problems. Supposing she might be a victim, and she might want you to also get affected. So what she does is to find you a boyfriend whom she is sure is a victim. She might also tell you that the guy is HIV negative. In the end you end up by getting affected too. This can be avoided by abstracting from such friends and stay with those who are interested in studies." (girl 17yr)*

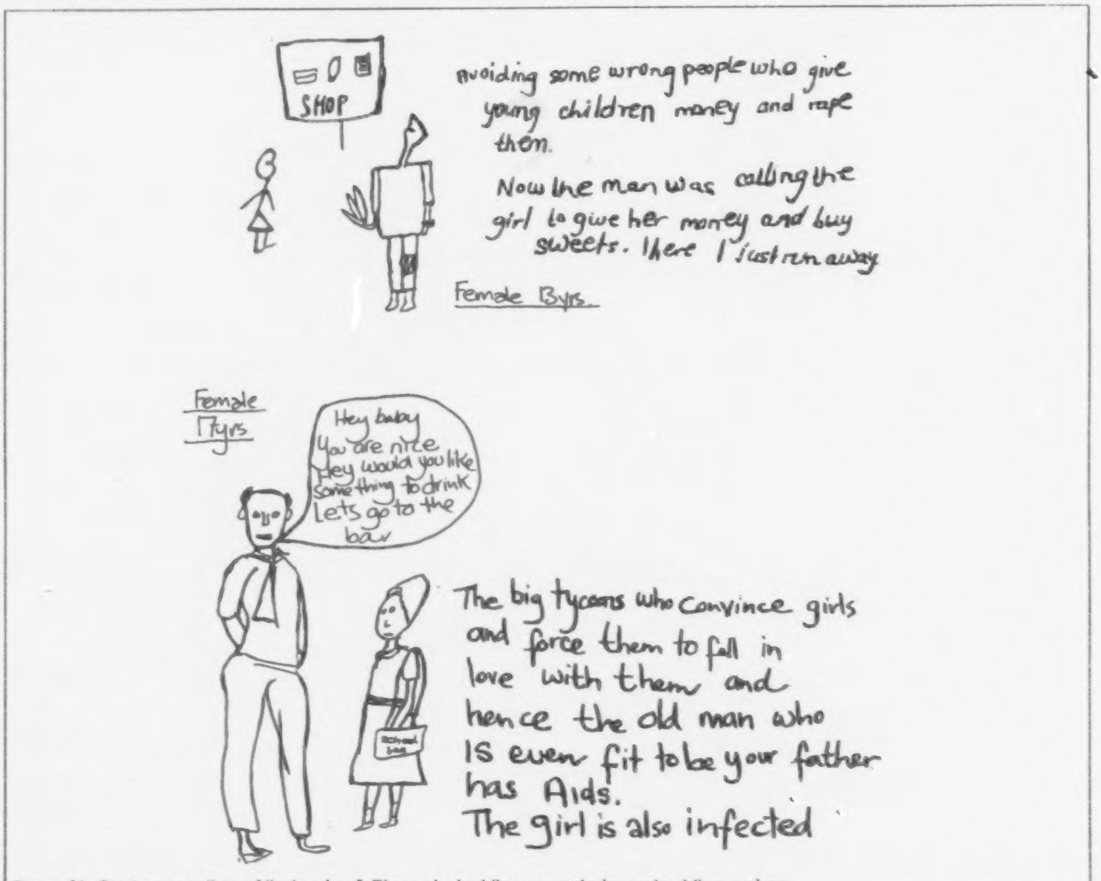
SHOP
Avoiding some wrong people who give young children money and rape them.
Now the man was calling the girl to give her money and buy sweets. There I just run away
Female 13yrs.
Female 17yrs
Hey baby You are nice Hey would you like Something to drink Lets go to the bar
School bag
The big tycoons who convince girls and force them to fall in love with them and hence the old man who is even fit to be your father has Aids.
The girl is also infected

Figure 21 Girls' perception of their vulnerbility and what they can do to protect themselves

Where do children learn about AIDS?

Children from all schools volunteer the idea that you can protect yourself from AIDS through learning more about it from school - and images of AIDS education in a formal classroom setting are common. However, there are also very many references to mass media AIDS slogans - such as "zero grazing" and "love carefully", and it is impossible in this study to be able to assess what the children have picked up from the media, what they have picked up from friends and through hearsay, and what they have learnt at school.

Avoid AND PREVENT Aids THE killer DISEASE
AIDS is a sexualy transmitted disease
we can prevent Aids by educating the yong ones who don't know the facts about it

Figure 22 Where children learn about AIDS (Uganda)

3.4 Opportunities for development

Evaluation of health and AIDS education in schools

There is plenty of evidence to show that evaluation is included in both the School Health Education Project (1991 internal review and 1993 external review), and in the AIDS control programme IEC efforts (1991 external review).

The internal review of the SHEP programme in 1991, as was mentioned earlier, highlighted problems in teacher training. The discovery of problems in teacher training has led to the development of a health education training module.

The 1993 review of SHEP indicated the success of the project, but also highlighted some problems which need to be addressed. These include: involving a much wider range of people in the initial development of syllabi and materials; establishing effective follow-up support mechanisms; addressing the gender problem - where there are few female teachers involved in the project.

On the issue of materials development the 1993 review states that the target audience, school inspectors, National Curriculum Development Council staff, SHEP project staff, and teachers should be involved in the development of the secondary school syllabus and teacher training guides, and in the revision of materials which have already been produced.

The 1993 review also raised the problem of materials getting to the right place -finding that some schools get too many books and others not enough. In some areas books intended for free distribution are sold in commercial book stores. A co-ordinated district focused system of distribution of materials to all schools needs to be put into place.

A number of key informants reiterated problems of follow-up mentioned by the 1993 review team. Sustainable follow-up of schools by a team of school inspectors and health educators at district level has failed, due to a complex of reasons: lack of transport and finances for allowances; under staffing at district level; and lack of training in follow-up of SHEP activities.

SHEP has also evaluated the impact of specific activities. For example, a study was carried out as a follow-up to the drama competition.

Child-to-Child has also undertaken an evaluation (1992).

From the above, it is clear that evaluation reports are seen as important for further programme development, and do lead to change and development. One example of this is the developments in-service training in the SHEP programme. Another is SHEP's involvement of teachers and teacher trainers in current work on the health education curriculum and materials for secondary schools.

Teacher support for developments in health education

The general view of teachers is that there should be more of what is already taught. Some also say that there should be a separate health science subject in secondary school.

Teachers do suggest changes to current teaching, to make it more relevant and practical. They also put a strong emphasis on prevention, especially focused on hygiene (which, from the draw and write, appears to be important already). Several refer to the importance of teaching about AIDS - with some feeling it should start from the first year of primary school. Others talk more generally of teaching related to sexual health and relationships. The constraints they mention are primarily to do with resources - for example : lack of suitable textbooks, lack of sufficient information about certain "killer" diseases, lack of practical equipment, lack of visual aids, no curriculum guidance on family planning and not clear syllabus.

Teacher support for development in AIDS education

From discussions with the teachers, there is general agreement of the need to tackle "all aspects of AIDS" (in which they include: causes, transmission, behaviour change, care of people with AIDS). Teachers feel that AIDS teaching must take into account the age of the child, but could start at P1.

Some teachers are still cautious about teaching the use of condoms - expressing the fear, which seems common the world over, that young people will experiment with sex if they are taught "too much".

> *"For example about the condom - the children should be given the knowledge but as for demonstration on how it should be used, it should be left to the adults."*
>
> *"Students are inquisitive. Once they taste the facts they want to find out more. Then they want to experiment. You encourage them."*
>
> *"Condoms were never made to prevent AIDS. They were made for family planning. It is not advisable to teach students about the use of condoms".*

However, others agree that condoms must be taught and taught practically :

> *"...the condom is not the problem, but how it is used. Even adults don't know how to use it....adolescents should be given time to know how a condom should be used and its shortcomings. But information on condoms should not be given prominence or priority."*
>
> *"I feel on the issue of condoms. Condoms bought should have a model. Shows how to use it. If somebody has the guts to go and buy them they should be taught."*

Teachers seem to be prepared to continue with AIDS education but add the following suggestions:

- outsiders with special expertise may be useful, and people with AIDS could be encouraged to become involved.
- children should learn about AIDS from same sex teachers (which therefore means that the gender disparity in in-service training on AIDS must be addressed).
- parents do not have a major role to play in AIDS education because of the difficulties parents seem to have in talking to their children about sex.
- resistance from parents on teaching about AIDS is unlikely - except possibly if there is explicit teaching on the use of condoms

Promising options for development of health education including AIDS education in Uganda

Before highlighting a number of promising options for further development, it is useful at this stage to summarise some of the current constraints:

- There is still considerable ambivalence about discussing sex openly in school (and, for example, to ensure that young people know about and are able to make proper use of condoms). There are also potential barriers from both religious quarters and from parents.
- The large classes, limited human resources and low salaries of teachers makes it unlikely that small discussion groups of same sex pupils and teachers can be held on a regular basis. The curriculum is already full and teachers are unlikely to spend time outside school hours without some incentives.
- Voluntary action by teachers who get involved in clubs and other extra curricular activities does take place but cannot be expected to take place on a large scale unless a reward is offered.

- Few female teachers are trained which also limits the number of small groups that can be organised for female pupils.
- Involvement of male teachers to discuss sensitive issues around sexuality with girls is not recommended for two reasons :
    1. the potentially mixed role of a trusted counsellor who may at the same time be having sexual contact with girls and
    2. the difference in experience of and outlook on sexuality between men and women.

That said, we can look optimistically at opportunities for consolidation of school health education programmes and development of extra curricular activities which have already started. The opportunities mentioned here are presented in relation to on going programmes and activities and are intended to strengthen these activities rather than provide a range of new initiatives.

1. SHEP programme

Recommendations for the SHEP made by the external review in 1993 need to be put into place. Special emphasis should be placed on formulating objectives in behavioural terms, improving distribution of materials, decentralising supervision and monitoring, and co-ordinating responsibility for teacher in-service training.

A review of the relevant studies into sexuality and adolescents, and an analysis of students' essays submitted for the competition could provide valuable information on which to base behavioural objectives. The action research strategies developed by AMREF and SYFA could help in formulating specific objectives in the different districts and regions.

2. Review of the health education syllabus

Some of the teachers indicated that not all of the content in the syllabus is relevant. A careful review of the teaching content might provide some space in the already full curriculum.

3. School health services

The potential of school health services and environmental conditions need to be looked at in greater depth than was possible in this study. Collaboration at district level between MCH teams, assistant health educators and schools could be improved to ensure at least one school check and immunisation programme per school per year. Another recurrent issue is the availability of sufficient functioning toilets and water points for pupils.

4. Counselling roles of female teachers in schools

Opportunities for increased training of female teachers should be sought. Establishment of counselling roles for female and male teachers should be encouraged. The initiative of the Shimono Model school in Kampala is a promising example. This school has a deputy female director to whom pupils can go on a confidential basis to discuss problems they encounter with teachers, other adults and peers who pressurise them into sexual activities. The school has established a **public** code of conduct which discourages pupils to be alone with teachers. Result of these improvements are likely to produce a more open climate to discuss difficulties pupils have to protect themselves from HIV/AIDS.

5. Extra curricula activities

The formal didactic style of teaching constitutes a serious barrier to the introduction of more interactive methods for discussing problems students have raised in this study. E.g.: relationships with parents and teachers, questions around use of condoms, sexuality, and social political issues. The best option seems the further development of extra-curricular activities.

The Child-to-Child programmes, SYFA, and the drama project of SHEP offer promising opportunities to develop youth clubs and extra curricular activities.

Comprehensive sex education, which includes :

- small group discussions between members of the same sex about public, peer and personal codes of conduct; negotiating sexual relationships and use of condoms;
- public discussions on the radio, within the resistance councils, and between other community leaders, teachers and health workers.

6. *Use of study findings to trigger discussions in schools and between schools and communities*

Research programmes need to ensure sufficient resources for dissemination of results to all relevant institutions. The discussion of results by community groups, youth clubs, parent and teacher associations and teachers would provide a basis to develop further initiatives and, especially in relation to HIV/AIDS, would help schools, communities and individuals to create a supportive environment to protect each other and themselves better. ODA could play a leading role and start with making money available for the discussion of this study with the schools and pupils involved. The experience in operational research being developed in the SYFA programme in collaboration with Universities and the training programmes already developed by the Child and Development Institute, could provide the basis for the development of training programmes in action research methods.

7. *Take account of the views of teachers, parents and pupils on how to move forward on AIDS education*

From the draw and write data, it would seem that children from Primary 6 upwards already have quite detailed knowledge about AIDS and how to protect themselves from it. Several describe different situations in which they might find themselves faced with saying "no" to sex, and appear to have given some thought to their responses. They want to know more and a number of them spontaneously volunteer teachers as a source of information. They also respond to the drama events concerned with AIDS.

There is little evidence of commonly held misconceptions - which are clearly evident in the data from other countries. There is a strong focus on the sexual transmission of HIV, and hence on condom use or on the need to change/limit sexual behaviour. There is also an understanding that whilst condoms are better than no protection, they do not afford 100% protection. Underlying much of what is written about sexual contact is some understanding that people who are infected with HIV may well look healthy.

From this it can be concluded that AIDS education - whether it is coming from the mass media, from school or from other sources, has certainly been effective in awareness raising. The question now is whether both students and teachers feel ready to take AIDS education further - with a much clearer focus on developing practical skills such as dealing with sexual relationships, making proper use of condoms, and ensuring safe treatment by health personnel.

As for the young people themselves, they still have many questions they want answered. During focus group discussions they put forward a number of questions, some of which go beyond standard factual information. The girls in particular are asking for help to deal with problems in the home and with dealing with their relations with men. These questions echo some of the concerns they raise in the "unhappy" data - suggesting a need for paying rather more attention to a more individualised counselling and guidance service in schools, as well as continuing to develop formal classroom teaching around AIDS.

Table 11: Questions asked by boys and girls

Questions asked by boys	Questions asked by girls
• proper use of condoms • advantages and disadvantages of blood testing • life span of the virus • AIDS symptoms • education on dangerous cultural practices that can transmit the virus • alternative behaviour to sex • how to know if blood is safe	• what advice can you give to girls to avoid suffering at home • how can the step mother problem be solved? • how to get men to stop disturbing them • how to prevent pregnancy • do contraceptive pills cause infertility? • advise parents not to mistreat their children: e.g.: "Some children have parents who are very free with their children and give them freedom as if they are big girls. And most of those parents use alcohol. When he is drunk, he will rape her."

The debate about who should teach children about sexual matters is already openly aired. Many of the comments offered during the study carry a sense of urgency; in the words of one teacher "time is running out" and "with the high rate of spread and the death toll", all avenues to educate young people in the broadest sense must be exploited.

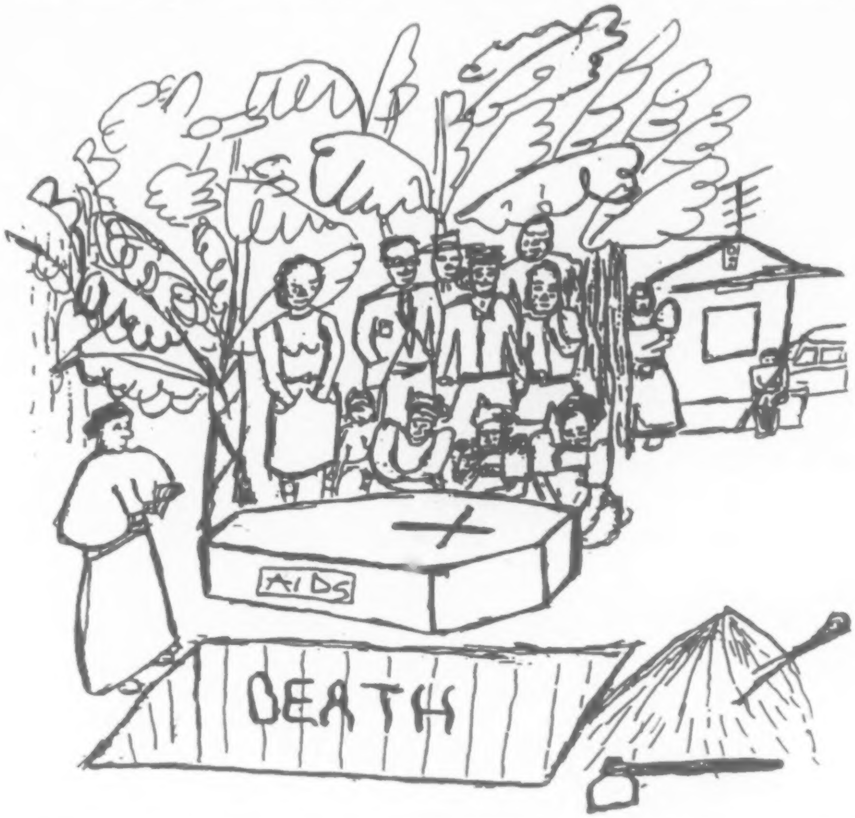

Figure 23

CASE STUDY 4: GHANA

The Ghana study was conducted in October 1993, in collaboration with the Health Research Unit in Accra. The study focuses primarily on Accra, although data was also collected from schools in a rural area between Accra and Kumasi. The policy information is generally applicable to the country as a whole.

4.1 *The general context*

Education and health

Ghana has a population of around 15.55 million with 45% aged between 5-19yrs. 67% of 6-11 yr. olds are enrolled in school, and 51% of 12-14 yr. olds. There are over 21,600 schools around the country.

The government is increasing the percentage of GDP it is investing in education. There is also substantial donor investment. This is an attempt to overcome several years of severe underfunding, during which the education system reached near collapse.

Despite the current activity, there is still a long way to go in re-establishing a functioning education system. Evidence suggests that, especially in rural areas, whilst there may now be buildings, the teaching that goes on within them is at best rudimentary.

Turning to health, by far the most serious problem, in terms of out-patient and in-patient statistics, is malaria. Main causes of morbidity include respiratory infection and diarrhoea. Anaemia is the most frequently recorded cause of death, followed by malaria, with pneumonia and diarrhoea also presenting a serious threat. Sexually transmitted diseases are not recorded amongst the top ten causes of either mortality or morbidity.

AIDS does not yet feature high on the mortality or morbidity statistics, but is clearly on the increase, and is seen as an important emerging disease. The first case was identified in 1986, with over 11,000 recorded AIDS cases by April 1993.

Health education in Ghana: and overview

Health education in Ghana is at an early stage of development. This is evident from the limited resources and staff with responsibility for it, the lack of any established, operational policies, and the weak linkage between the health and education sectors.

At central level, there are three bodies with some responsibility for health education:

- the Technical Co-ordination and Research Division (TCRD) of the Ministry of Health, which has overall responsibility for health education within the ministry.
- the Maternal and Child Health/Family Planning wing of the MoH, responsible for the School Health Service
- The School Health Programme within Ghana Education Service (GES).

There is a School Health Steering committee, with representatives from both health and education. However, it is not clear from this committee where responsibility for action and development lies.

TCRD's involvement appears to be limited to a central health education resource at the main teaching hospital in Accra. The School Health Service has more obvious grass-roots contact with schools (although no clear linkage with the education sector at central level).

The School Health Programme is very new, and at the time of the study had no staff with specialist training or expertise in health education.

The only other evidence of health education activity at regional level is the health education unit in Kumasi (partially funded by ODA). This operates within the Metropolitan Authority.

There are few regional health staff and no district staff with special expertise in health education, either in the health or the education sectors.

Donor interest and support for health education programmes is limited. UNICEF has some involvement both with curriculum development related to lifeskills in primary education, and in Child-to-Child developments. The ODA teacher education project is working with UNICEF on developments in Child-to-Child.

Links between the National AIDS control programme and the education sector.

The picture already described of the link between education and health is repeated when looking at the link between education and AIDS control. The National AIDS Control Programme was set up following first case identification in 1986. A medium term plan was prepared. This included objectives related to Information, Education and Communication (IEC), but did not make special reference to schools. It did, however, target 15-30 yr olds, and saw schools as a possible vehicle for its mass media efforts.

In addition to the mass media campaign, there have been a variety of other activities focusing on young people including a workshop for Youth Leaders, a materials development workshop for street youth, a street youth education programme, a drama group for AIDS education and an AIDS poem cassette. None of these link directly with schools - focusing as they do on out-of-school youth.

Reviews of the National AIDS Control Programme have made specific mention of the lack of co-ordination between the Ministries of Health and Education, noting that teachers have not been well briefed or trained in guidance and counselling. They include in their recommendations the need for a policy on AIDS in schools, and more collaboration between researchers and implementers around AIDS.

Health and AIDS education needs assessment for curriculum development

Although policy development and co-ordination between the health and education sectors appears weak, there is a growing body of research data available in Ghana on the health of school children, and on the sexual health knowledge and practices (including AIDS awareness) of young people. Some of this has been undertaken specifically to inform the development of school health education. Others provide data which could be used in this way. The current study is the first of which we are aware that focuses on the views and concerns of young people, rather than taking a more "directive" approach, aimed at measuring pre-defined issues.

The health survey to inform school health policy was undertaken in 1990. The study involved 1,620 junior secondary school pupils and 104 teachers, from 16 schools, in four different regions. Results indicated poor environmental conditions in the schools, and minimal time devoted to teaching around health issues. The study also noted low involvement of parents in school life. Health issues identified in the study included : dental caries, upper respiratory tract infection, ringworm, head lice and intestinal worms. Solutions suggested included :

1) provision of health information to schools (on diseases, sex, drug abuse, nutrition)
2) community mobilisation to support the school health programme
3) the establishment of health clubs
4) teachers to be trained in health, and health studies to be incorporated into initial training
5) first aid boxes to be supplied to schools
6) parent education on child neglect, child labour and family planning
7) health workers to provide health education in schools.

These recommendations have yet to be implemented - but indicate an understanding amongst those concerned of a range of important components in establishing an effective school health education programme.

A more comprehensive and systematic study of the health needs of school aged children (both those in and those out of school) is underway. This study is connected to a health intervention programme in schools, concerned with deworming, and micronutrient supplementation.

Both studies have been carried out by the Health Research Unit, within the Ministry of Health, in close co-operation with the School Health Programme - forming a useful alliance between the two sectors.

On sexual health, there have been studies on the sexual experiences of junior secondary school pupils (Adomako 1991) and adolescent pregnancy. These studies suggest that by 15yrs, at least one third of girls are sexually active, and that education on contraception is very limited.

On AIDS, Anarfi[14] (1993) carried out a baseline study amongst 15-20 yr. olds in two regions, repeated twelve months later following a mass media campaign. This found awareness of AIDS focused on sexual transmission and condom use. Another study (Ametwee 1993) of universities and secondary schools found high awareness of AIDS prevention, low condom promotion, and a wide range of negative attitudes towards people with AIDS.

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[14] From : 3rd National Seminar on AIDS. MoH Ghana, September 1992.

The sexual health and AIDS studies are available to curriculum planners - but it is not clear whether they are actually used in this way. They certainly provide the potential for increasing the relevance of what is taught, by focusing health education on the health priorities identified.

4.2 Health and AIDS education: curriculum activities

Health education curriculum and textbook content

Schooling has recently been restructured into a three tier system of primary (P1-P6), junior secondary (JSS1-JSS3) and senior secondary (SSS1-SSS3).

At primary and junior secondary level there are nine subjects taught: Maths, English, Agriculture, Science, Social Studies, Cultural Studies, Ghanaian languages, Life Skills, PE. All teachers teach all subjects. Health education is "integrated" into various subjects, but is most prominent in Life Skills. The most substantial "health input" can be seen in the JSS Life Skills book 3 (see below).

Life Skills for Junior Secondary Schools - Pupil's books 1-3

Book 1
Chap1: Individual development (inc.puberty, menstruation and moral values)
Chap2: The food we eat - balanced diet
Chap4: Food preparation (this is mainly cookery/recipes)
Chap7: Cleaning the home
Book 2
Includes more on diet, and more on sanitation (environmental hygiene)
Book 3
Chap8: Personal appearance and hygiene (all about body odour and hair care)
Chap9: Health care - sexual behaviour, talks generally about problems with teenage pregnancy stressing the dangers. Contains long sections of antenatal and postnatal care and nutrition in pregnancy, breastfeeding, weaning, growth monitoring, immunisation, ORS, FP (NB on FP only says why, not how). STDs, AIDS (just under 1 page).

As can be seen in the Book 3 section on health care, all the elements of the Facts for Life book are incorporated - which was achieved with encouragement from UNICEF. There is a lot in here of why you should do healthy things, but rather less on what to do or what to expect.

At SSS level, students have seven core compulsory subjects (English, Ghanaian, Science, Maths, Agriculture and Environmental Science, Life Skills, PE). They then choose from 5 broad programmes of specialisation: agriculture, technical, vocational, business, general arts/science - within which there are various options (e.g. : under "science" you can select and combine any three of the following: biology, chemistry, maths, physics). Under the "vocational" home economics option, you select and combine: management in living (which has quite a strong health component), clothing and textiles, food and nutrition, general art. All students receive some input on health in the Life Skills classes, and those taking the vocational options (especially management in living, and food and nutrition) and science options (especially biology) will get further input.

Whilst this coverage looks quite comprehensive, and there appears to be quite a substantial amount of health input across the curriculum, a quotation from the Director General of GES on sex education is worth keeping in mind : *"Well, we are not talking about it very openly"*

The sections where sex education and contraceptive education might seem relevant do not address these issues.

AIDS education in the curriculum and text books

AIDS does get mentioned in existing textbooks - again, as part of the Life Skills course. The box below gives an outline of what is included.

Specifics on AIDS : (from Life Skills book 3 chapter 9)

On AIDS (about 1 page) : - new disease, acquired immune deficiency syndrome, virus, no cure, kills, not spread by shaking hands, spread by sexual contact with infected persons, spread by shared needles, sharp instruments, mother to baby transmission, can look well for 3-5 yrs and still spread the disease, use condoms, stick to one partner.

Symptoms : tiredness, cough, weight loss, diarrhoea, recurrent shingles, fever, headache, painless swellings.

Precautions : condoms, 1 partner, injections only from hospitals, don't share blades/toothbrushes.

Health education: Practice

Teacher, parent and pupil evidence on how the curriculum is implemented.

Taking an overview of the data from:

- what teachers say they teach
- the issues young people highlight as making them “unhappy/unhealthy”
- what parents think their children are taught about health,

there seems to be general agreement at grassroots level that issues around personal hygiene, local environmental sanitation, and the basics of diet and food hygiene do receive some attention - all of which appear in the textbooks. These issues also relate to some of the health problems highlighted in the school health survey.

Coverage, or reference to major communicable and locally endemic diseases is very limited. It certainly gives no impression that young people are aware that malaria is the major cause of mortality or morbidity in the country - indeed when groups were asked what the major health problems in Ghana today are, AIDS and Burueli ulcer were top of the list. This indicates the power of the media - given that these two diseases have received considerable mass media coverage.

There is limited sex education provision within the Life Skills textbook, and several teachers mention covering this material with students. However, they acknowledged that coverage is at best superficial and “avoids any practical details”. Many teachers express embarrassment about teaching sex education. They note that where possible, external speakers are brought in to give “special sessions”. Only one parent mentioned sex education. Amongst the young people, there were clear differences by grade, with only 5% of the primary and junior secondary students referring to issues around sex and pregnancy, as compared with 19% of the senior secondary students.

Other issues which are generally recommended for inclusion in school health education programmes get little attention. Drugs (including smoking, alcohol) is referred to in the curriculum, but not mentioned at all by parents, referred to by very few teachers (who again say it is dealt with by outside speakers) and raised by only 18% of the young people. There is virtually no reference to exercise or accidents.

The above description covers the traditional “health education” topics one might expect to find within the curriculum. However, it masks an important emphasis in the data from the Ghanaian school students. In many cases, they made a clear distinction between what makes them “unhappy” and what makes them “unhealthy”. Under “unhealthy” there tended to be a somewhat cursory list, with a heavy emphasis on personal hygiene. Under “unhappy” came many issues to do with personal relationships, worries and concerns, as well as broader social and political concerns. Whilst some of these were simply presented as lists of ideas, a substantial proportion included quite detailed thought - as can be seen from the images and views presented in the section reporting on The concerns of young people.

Teacher, parent and pupil evidence on AIDS education.

The “priority” given to AIDS by young people can to some extent be seen in the small numbers (8 students (1.7%)) who specifically referred to it in the initial “unhappy/unhealthy” data.

Reviewing the data from teachers, textbooks, parents and the young people confirms the findings of other studies in Ghana that there is a basic level of general awareness about HIV/AIDS. However, all parties also agree that this awareness comes primarily from the mass media effort, and from discussion at home and with health workers, rather than from school. Whilst there is some school coverage, it is minimal. At best, it takes the form of health workers coming to provide one-off sessions.

4.3 The concerns of young people

4.3.1 General health concerns

Table 12: Things which make the children "unhappy and unhealthy"

Issue	Frequency	Percentage (total n = 478)
Issues related to 'traditional' health education topics		
diet	214	45% (higher amongst SSS students)
environmental sanitation	177	37% (higher amongst SSS students)
diseases (inc. "being ill")	147	31%
personal hygiene	136	28.5%
food hygiene	99	21%
Issues related to personal concerns		
relationships with parents	227	47%
personal/emotional problems	216	45%
relationships with friends	163	34%
problems at school	153	32%
political/social concerns	144	30%

As can be seen from the above summary, personal problems at home and at school present much greater challenges to the young people than do issues around physical health and hygiene. The following quotations by the children illustrate the strength of some of these concerns.

Problems at home

> *I would emphasise on the aspect unhappiness. I was very young when my mother died. Since she was the bread winner of the family I lacked certain things that I do not get what I want. Though I have been lucky that I have some benefactors, yet I have spend some of my studies time on them by assisting them in house and workplace as well. (boy 21yrs)*

Problems at school

> *As a boarder I have been facing many problems especially financially...as a boarder I have to pay some amount of money for the hall prefect immediately we re-open the school which to him means "Buying freedom" for the term. But this is wrong because after giving him this amount he becomes your companion for just a short time and the rest of the term becomes your worst enemy........ (boy 16yr.)*

Emotional/sexual worries

> *It is very difficult for my parents to offer me all my needs, for instance [money] for school....because of this I became in love with a boy who at times provide me some of my needs but I have taught that as a Christian it is adultery to God so I have decided to stop and accept what my father gives me because this makes me unhealthy. (girl 21yrs)*

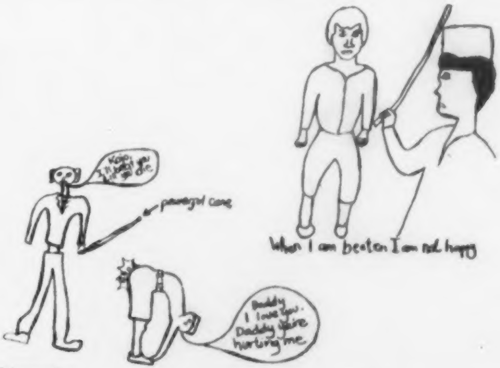
powerful cane
When I am beaten I am not happy
Daddy I love you. Daddy you're hurting me

Figure 24 Prolems with parents (Ghana)

Issues relating to physical health and personal hygiene

> *There are a lot of things that make me unhealthy. For example if I do not take proper care of my body such like bathing regularly, cutting off hair to prevent lice, easing myself properly to prevent headache and taking good care of pubic hairs that grow around armpits and sex organs. Regular brushing of teeth and caring of finger nails (boy 18yrs)*

Issues relating to environmental hygiene

> *What makes me unhappy is when my surroundings are dirty and the gutters choked with rubbish and mosquitoes. To see children eating by rubbish and people dumping rubbish around. ... Some people don't know what they are doing, but others know and just don't care and that makes me very unhappy. (girl 10yrs)*
>
> *When I pass through some town in Accra the capital of Ghana, I see standing water and also people selling near this water which can cause harm to the human body. I will be very grateful if the Public Water department will take their work serious because the government pays them to see to these things. (boy 16yrs.)*

Gender and age differences in the data

Detailed analysis of the young people's data showed no obvious sex differences. There were some differences in emphasis by grade - with older students talking more about diet, environmental sanitation, and issues around sex and pregnancy. Younger children (primary and JSS level) talked more about problems with parents (64% vs. 49%). One school stood out as very different from the others in terms of the quality and type of response from the young people. This was a Moslem school, in a low income area. This may partly be a problem of the data collection approach used - since the children seemed unable to express themselves as well in writing as those from the other primary schools. It may however also be indicative of a school which does not use the standard school curriculum, but instead places much greater emphasis on religious teaching.

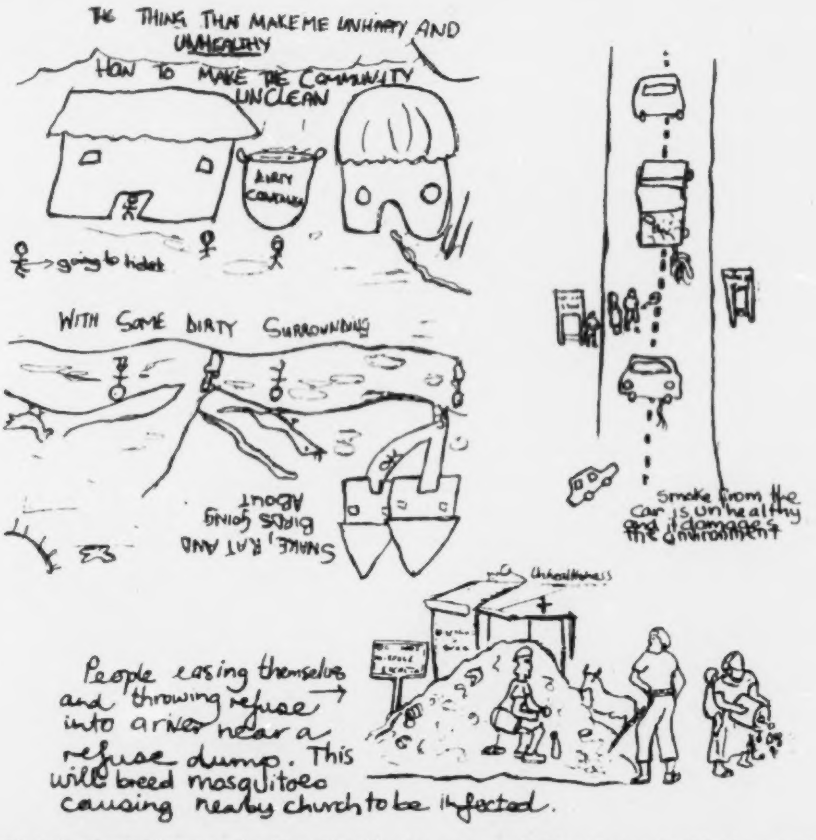
THE THING THA MAKE ME UNHAPPY AND UNHEALTHY
HOW TO MAKE THE COMMUNITY UNCLEAN
DIRTY CONTAINER
going to toilet
WITH SOME DIRTY SURROUNDING
SNAKE, RAT AND BIRDS going ABOUT
Smoke from the car is unhealthy and it damages the environment
Unhealthiness
People easing themselves and throwing refuse into a river near a refuse dump. This will breed mosquitoes causing nearby church to be infected.

Figure 25 Children's pictures reflecting more traditional health concerns: physical health, personal hygiene and environmental hygiene (Ghana)

4.3.2 Children's understanding of AIDS/HIV

For the draw and write exercise, young people were asked to say what they knew about AIDS, especially about how they could prevent themselves from catching it. The majority could put forward between four and eight distinct ideas about HIV/AIDS, often including details on prevention, transmission, and on how the disease affects the body. There was no obvious sex difference in responses about AIDS. On the issues raised there were also no apparent age differences - indicating the likelihood that the majority are getting their information from the same (mass media) source. The only apparent difference was in terms of variety of ideas put forward - with senior secondary pupils tending to express a wider variety of ideas than did primary or junior secondary pupils.

Table 13: Most commonly expressed idea on AIDS

issue	percentage (total n = 478)
AIDS transmitted sexually/prevented through limiting sexual partners, avoiding casual sex, sticking with your partner etc.	75.9%
using condoms as a way of preventing AIDS	49.8%
ensuring sterile techniques used in hospital/ spread through use of contaminated needles etc.	36.2%
avoiding sharp things (razor blades, tooth brush etc.)/ spread through cuts etc.	31.8%
misconceptions	31%
describing various symptoms related to AIDS	27.4%
describing AIDS as affecting a large part of the population/being a very serious problem	22.6%

Sexual transmission

From the data it is clear that the majority are aware that HIV is passed between men and women, and many talk and draw about sexual transmission, for example:

> *If a man sleep with a woman and his friend a new wife and he sleep with that woman and he get a new wife and he sleep with that new woman it can bring AIDS or if the new woman have a old husband and he sleep new woman that one can also bring aids....(etc.!).. or if a 20 years old boy went to a dance and he take a girl to dance next time the boy going to other girl to dance, that one also brought aids (boy 12yr..)*

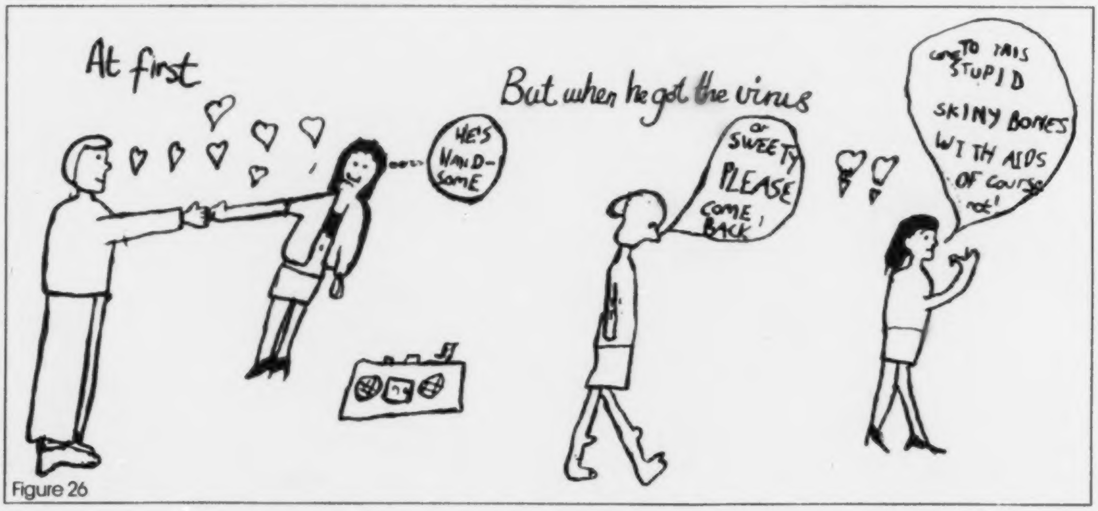
At first
HE'S HAND-SOME
But when he got the virus
or SWEETY PLEASE COME, BACK
come TO THIS STUPID SKINY BONES WITH AIDS OF COURSE not!

Figure 26

Coupled with this they talk about sticking to a single partner, avoiding "bad women" or "discos" or "bad men".

> *The boys that go after girl like a frog should stop at once because if they don't stop it will spread all over the world. (girl 10yrs)*

Some of the drawings clearly show a basic understanding of sexual intercourse. However, discussion groups often showed some confusion about the exact nature of sexual transmission which suggests that the understanding some young people have is superficial, and has either not been explained at all, or only in very general terms.

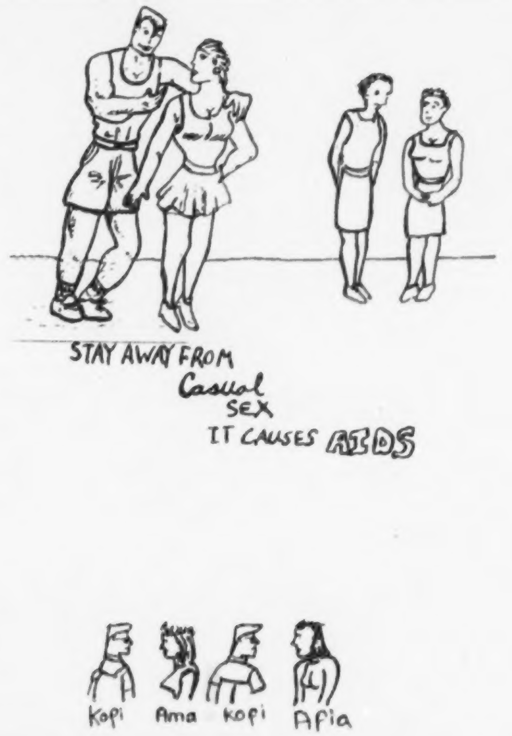

Figure 27 Children's understanding of sexual transmission of HIV (Ghana)

Other ideas of transmission

Whilst basic knowledge that AIDS is sexually transmitted is clearly evident in what the students say, it is dealt with in very little detail. On the other hand, when it comes to discussing the spread of AIDS through blood contamination and the sharing of sharp things (such as razors), many students go into lengthy stories of somewhat unlikely series of events. This is a very distinctive feature of the Ghanaian data, which is not found to anything like this degree in Uganda or India. This example gives a flavour of what is written :

> *It can be passed on to people when a person has aids and accidentally cut him or herself with a knife and bleeds. When another person without aids also cuts himself on the same knife the person will definitely get aids. Another way is ... for example children could be playing if one gets hurt and person is nursing the child has aids and at the same time has a cut on his hand if their blood gets together the child could also catch aids. (Girl)*

Other circumstances in which children think AIDS is transmitted via non-sexual contact include:

- *Drinking from same cup...if the fellow is suffering from gum bleeding*
- *If there is an accident and people are wounded and some have this AIDS ..and they lied closer at one place*
- *If one with AIDS is injected and the same injection is used on you you will get it*
- *If somebody get AIDS and she use blade to cut her finger and you also go and take that blade and cut yours I think you will get AIDS.*

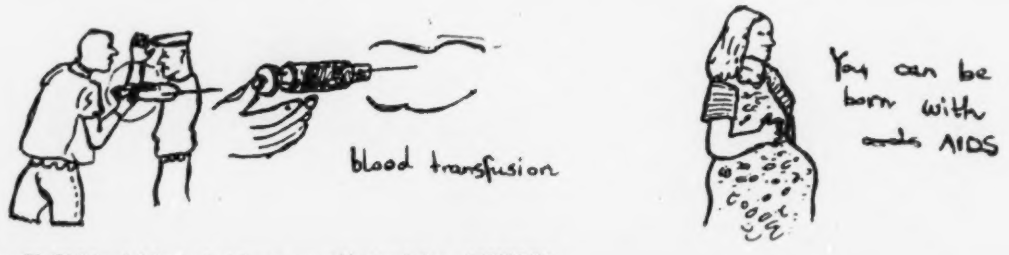
blood transfusion
You can be born with ~~aids~~ AIDS

Figure 28 Children's ideas about non-sexual transmission of AIDS/HIV

Misconceptions about how AIDS is spread

Almost one third of the sample show evidence of misunderstanding about how AIDS is transmitted. Most of these are related either to basic hygiene and cleanliness, or more specifically on the kind of contact which is "safe" to have with people with AIDS.

- *Kisses also is one of the ways you can affect by AIDS*
- *When you bath in the river you will get Aids.*
- *When you are stabbed by a knife you will get Aids.*
- *When you are suffering from your eyes it means you have Aids.*
- *If you do not sweep your house you will get AIDS.*
- *If you do not wash your plates you will get aids.*
- *You can get Aids in the car if somebody is sweating and you sit beside that person*
- *You can get it through urinate because if you urinate on the toilet and you sit on it you get it.*

Prevention: condoms

A similar picture emerges when the young people talk about condoms - in the majority of cases, they simply state that condoms protect you from AIDS, but offer no further detail (unlike Uganda, where young people can name many different brands, and frequently provide graphic illustrations of condom use). Where young people do supply more details on condom use, it frequently takes the form of highlighting problems with the safety of condoms.

Others come up with suggestions for distribution - possibly indicating that they might use them if they were easy to get hold of.

> *As a man you must always have condoms. They should also give condoms to boys. I think every Friday health educators should come to talk to students about AIDS and sex education. That will let them know what sex is about, and they can take the right decision. They should have right ideas. They must be given condoms." (focus group)*

Prevention: abstinence

> *I will recommend that every student abstaining from premarital sex which is possible, because personally I'm still a virgin and hope to keep it till my marriage with the help of God. (boy)*
>
> *I have to be careful. If I do not follow men I will not have aid and if I don't have sex with men I will not have aid. (girl 17yr..)*

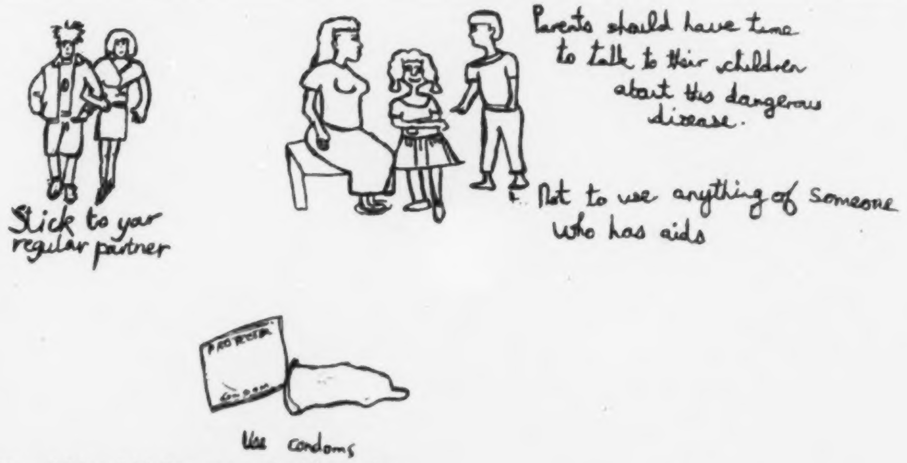
Parents should have time to talk to their children about this dangerous disease.
Stick to your regular partner
Not to use anything of someone who has aids
PROTECTOR
condom
Use condoms

Figure 29 How children think they can protect themselves

Misconceptions about treatment for AIDS

At the time of the study, there were many references on the radio to a herbal cure said to have been found by a Ghanaian, Nana Drobo, who subsequently died. In the programmes, the point was made that if he had indeed found a cure, the recipe had gone with him - and that there is still no cure for AIDS. This point had clearly been taken up by the young people, with a number of them talking about Nana Drobo.

Attitudes towards people with AIDS

Through much of the data there was indirect reference to people with AIDS, and of the need to avoid having sex with them, or of having anything to do with them. A small proportion (13.6%) took this a step further, expressing particularly hostile views about people with AIDS, saying they should be isolated, or even killed.

> *AIDs patients should be dumped elsewhere. No, they should be imprisoned with hard labour." (focus group discussion)*
>
> *When someone have aids the person should be kill .. if you are a doctor.. and you have note that the person has aids you give the person should be injected with strong chemical and kill he/she to avoid the spreading of aids. (boy 17yrs)*

Only 6% expressed the view that AIDS is not spread through normal daily contact with people with AIDS, and the following quotes on caring for people with AIDS were extremely rare :

> *AIDS as far as I know can not be transmitted through: social gatherings, hand shakes, sharing of cups, spoons etc. Those with AIDS need special attention especially love so that they can feel a part of the community and not lived a lonely life and die through grief and suffering. Those who have AIDS need not feel shy but come out and empress this menace so that other people will not fall into such trouble and eventually die. People with aids should be given the chance to go on doing their work so that they do not feel the community has neglected them. (boy 17yrs)*

Reference to AIDS education: School

Only 10% of the sample make any reference to AIDS education. A few talk about the AIDS education they have got through school and from parents - noting in some cases that this has not been as detailed or helpful as it might have been!

> *Aids is something I heard of when I was in the Junior secondary school that was said to be a dangerous disease that whenever someone had it or acquired it, never went free....not able to live longer than five years... Later I came to senior secondary, I met people who told me it was through having sex that the disease is contracted. There and then I asked my father...he confirmed it saying it did not concern my age group. When asked why , he told me that children could only get the disease either from birth, meaning his or her parents, or through disobedience. (boy 17yrs)*

Reference to AIDS education: media

There are also some mentions of media input, both in text and in some of the illustrations, with the slogan: "Don't be careless, get protection".

> *...a lot of programmes and talks are been held on the TV, radio and especially in our schools and not least from my parents.. (girl 15yrs)*
>
> *An advice is given every day from the television, radio ... a man is talking to his child saying my son you may be heading for trouble, have you heard the disease AIDS and the easy way of getting is by chasing sexual partners left and right and the boys said sir but how can a nice looking girls have the AIDS virus and the man said think about it. (boy)*

Young people's expressed desire to learn more about AIDS

There were a number of requests and suggestions for improving AIDS education - with a notable emphasis by the young people on a desire to be able to talk to their parents more openly about such matters :

> *If I get AIDS I will start a programme to educate other people about the disease Aids. I will tell everybody how Aids can be got, and how to protect themselves (girl 11yrs)*
>
> *Parents should have time to talk to their children about this dangerous disease (boy 11yrs)*
>
> *I know that it is easily and widely spread through sex. What I think can be done about this is to educate people especially the youth on the effects of the disease. I said the youth because they are ignorant about everything and want to "enjoy life" as they say. This leads them (especially young girls) to accept proposals from males (especially those who would be giving them money). (girl 18yr.)*

Other concerns around AIDS

Students raise a number of other issues concerning AIDS - for example many talk about what a dreadful disease it is, and how it is affecting many people. HIV testing is raised, but not in detail. The issue of ensuring good practice in hospital is also present, along with the recommendation of avoiding "quack" doctors. However, the view that health workers are actively negligent, or even guilty of maliciously spreading the disease - which is found in the Uganda data -is absent here.

4.4 Opportunities for development

Research and evaluation

To date there has been no evaluation of the impact of teaching on health education generally - either in terms of its educational quality, or its impact on health. Rouse[15] (1992) carried out a detailed study of the JSS family life education programme (which encompasses family planning, STDs, human biology, teenage pregnancy) in Kumasi. The results of the study indicate that lack of resources, parental disapproval and teachers' attitudes are major blocks to development - with the view that "sex education increases promiscuity" being commonly held.

There have been a number of AIDS knowledge, attitudes and practice (KAP) evaluation studies related to the National AIDS Control Programme. A review of these studies (1988 to 1991[16]) indicates a quite high degree of AIDS awareness, but also a number of misconceptions - including belief that AIDS is curable, and that it only affects "high risk groups".

As the School Health Programme developes, it will be important to use the findings of these studies, along with the needs assessment work which has also been done. Current health education teaching is considered to be sufficient.

Teacher and Parental support for health education in schools

Teachers stress the importance of hygiene education and express embarrassment and some reluctance about teaching sex education - but agree that it should be in the curriculum. Parents support the importance of hygiene education - but again suggest little further. A small number suggested the importance of sex education (none seemed opposed to it). Several, when probed on specific diseases, felt AIDS should be addressed.

The following points summarise the main points for consideration if school health education is to be strengthened:

- Possibilities for implementation are frequently constrained by resources, and by parental and teacher resistance - with the commonly held view that "sex education increases promiscuity".
- Teachers and parents agreed that AIDS should be addressed through schools - with age 12yrs being seen as the time to start teaching "in detail".
- Teachers accept that sexual aspects of AIDS must be addressed - but feel they need help on this (and prefer to involve health workers)
- Parents express a diversity of views, from some happy for their children to be given explicit and practical detail on (for example) condom usage, through to others who feel that information on how to prevent sexual transmission of HIV should not be addressed until later on in senior secondary school - believing that mentioning this earlier will lead to experimentation by young people.

Promising options for development

It is important to build on and develop existing structures and provision further, rather than attempting further innovation. In particular:

- strengthening the School Health Programme (SHP), and developing its link with the Ministry of Health.
- ensuring that the SHP makes full use of the available needs assessment data for curriculum planning and materials development.
- strengthening the School Health Service, again in close collaboration with the SHP.

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[15] Rouse, F. An analysis of the practice of family life education in JSS schools of Kumasi District, Ghana. Msc dissertation, Leeds Polytechnic, June 1992.

[16] Health education experiences in the Kumasi district 1991-1994. Kumasi Health Education Project.

- ensuring widespread dissemination through both health and education of the results of the school health intervention initiatives, in order to assess its future potential.
- addressing a current overemphasis in AIDS education of transmission of HIV through blood (e.g.: open cuts, shared razors at barbers etc.), and to re-focus on sexual transmission. (This may be an NACP mass media issue).
- highlighting individual susceptibility to HIV (currently seen as something affecting "other" - not "me").
- capitalising on the teacher and parent support for AIDS education through in-service training of teachers.
- developing the guidance and counselling service in schools, to address a wider range of personal issues, rather than only school subject choice.
- supporting current work further, rather than trying to develop new ideas from scratch.

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